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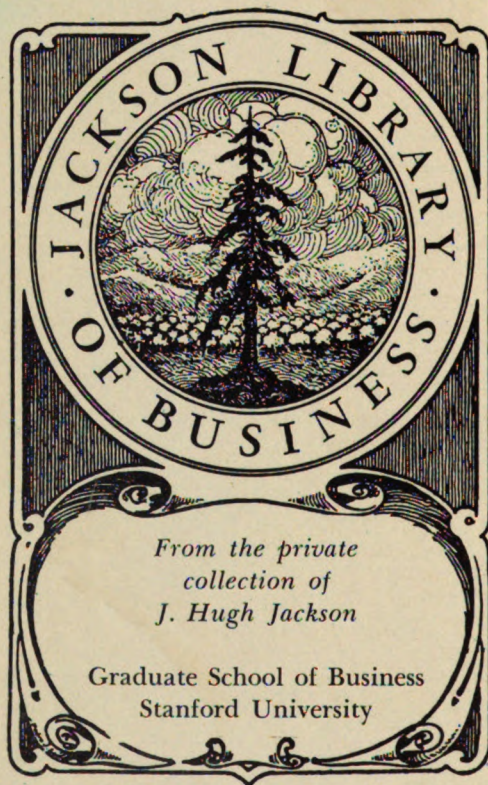
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The Fallibility of Unverified Financial Statements*

BY ROBERT H. MONTGOMERY

Existence would not be endurable without optimism, and the tendency to make the best of things is highly commendable. This tendency, however, when fully developed encourages a disposition to deceive one's self, which is not wholly objectionable when it is applied to sociological matters, but self-deception on the part of one who seeks credit from another is a fault to be deplored and condemned. It is questionable whether the time will ever arrive when a man can be depended upon to prepare an absolutely impartial statement of his own financial affairs. The one basic reason is that we all are fallible, the fallibility of human nature being as old as the race.

Furthermore, as a perfect financial statement would be possible only if based on infallibility, we must consider that perfection means 100 per cent efficiency in those human functions which are always more or less imperfect. We cannot, if we would, make machines out of ourselves, and it is machines only that ever operate at 100 per cent efficiency. The machine itself cannot continue at its maximum efficiency for any considerable period of time, so that it would be most unreasonable to expect human beings, who at their best are probably not 75 per cent efficient, to turn out product on a basis equal with that of a 100 per cent perfect machine.

Therefore, the financial statement proceeding from a fallible

* An address before the National Association of Credit Men at the annual convention, Cincinnati, June 19, 1913.

source, may be expected to be as far short of perfection as the producer himself. This may appear to be too strong, but I am prepared to prove that it is conservative.

In the first place, every statement of financial condition is an estimate, even though it is an exhibit of the assets and liabilities of a concern which has nothing but currency on one side, and capital stock on the other. The ultimate realization of the cash depends upon finding it in the cash drawer when it is wanted, and an estimate must take into consideration the fact that sometimes it is missing. This is the first element of uncertainty. Then, too, whether the concern is one day or one year old, liabilities may have been incurred about which the particular person who prepares the statement knows nothing, but which are none the less binding upon the concern. This is another and very common element of uncertainty.

But we are chiefly interested in the average enterprise, the one with accounts receivable, inventories, plant and other fixed and miscellaneous assets; with accounts and notes payable, accrued liabilities of certain and uncertain nature. Do we not know from experience that the values placed upon all these items are estimates and subject to fluctuation from one hour to another?

Assume an extreme case. A concern may be dominated by an executive of extraordinary ability, who devotes an immense amount of time to his plant and product, who knows values and who applies knowledge. The bookkeeper is a master of his art; he has a common-sense as well as a technical knowledge of the affairs of the concern; he can visualize the operations of the business to such an extent that the books of account truly represent actual transactions. All these and other elements of the organization are concentrated upon the preparation of a financial statement intended to represent the most accurate exhibit humanly possible.

After all is said and done the statement merely reflects the opinion of those who prepared it; they have estimated the value of the assets and the amount of the liabilities; and nothing in their power can make it anything else. In nine cases out of ten a rank outsider, but one familiar with the line of business in question, and competent to pass judgment, would disagree with some of the valuations, and his estimate might be as near

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the truth as that of the one who fixed the values.

Now, if we find the ideal statement founded upon and dependent upon estimates which are open to question, what is to be expected where ideal conditions do not exist—where the executive is more or less indifferent to the recording of transactions and the fixing of values of plant and product, where the bookkeeper is more or less skillful and lacks the power to connect book entries with day-by-day transactions? Is it not inevitable that additional grounds for differences of opinion exist, and that the likelihood of serious error increases until it includes a large proportion of cases involved?

I have not referred and do not intend to refer at this point to statements which are fraudulent or where there is an intent to produce dishonest statements. I will discuss this class later.

In referring to the great class of inaccurate statements, I speak from experience in stating that the controlling motive in preparing balance sheets which show a greater net worth than is warranted by the facts, is the human tendency to make the best of things. In other words the average man cannot be expected to, and does not, place a true value upon his property, nor does he recognize and record the full extent of his debts.

Probably no one in this country has given more thought to the question of financial statements than MR. JAMES G. CANNON, president of the Fourth National Bank of New York. In an address some years ago, he said:

Statements of financial condition should bear the certificate of a certified public accountant, because (among other reasons) inaccurate and dishonest statements are being constantly received. Many statements reach us which are made by irresponsible parties—clerks and under-men—and the management is frequently in ignorance of true conditions. Protection against such is essential.

Let use see whether or not a reasonable measure of protection has been realized during recent years.

During 1912 there were, as stated in *Dun's Review*, 15,452 business failures in the United States, with liabilities of \$203,000,000.00. The *Review* says: "During 1912 there were about 2,000 more failures than in the preceding year, and this, unless it can be explained, is in direct antagonism to the plain evidences of agricultural and industrial prosperity and mercantile activity during the year. The larger number of small defaults may be due to the fact that more people are going into business with

insufficient capital and experience, and thus fall by the wayside."

Probably all the 15,452 submitted statements on uniform blanks provided for the purpose. I venture to say that every one was materially inaccurate. If compulsory verification were in force, how many of those statements would have stood the test?

Last month, that is, during May, 1913, business reverses were 1,246 in number with total liabilities of nearly \$17,000,000 (this is the smallest total reported for any month this year) and the number of failures was greater than in any May since 1908, and the aggregate amount of liabilities was the heaviest in over a decade past.

You, of course, are familiar with these figures and their significance. Your organization adopted uniform statement blanks fifteen years ago, that is in 1898. Their use has been of tremendous assistance in the onerous and important duties which are imposed upon you in your official capacities. Is it not a fact, however, that the outcome of the use of statements has been somewhat unsatisfactory? Have not the weaknesses pointed out by MR. CANNON many years ago continued? Am I not right in stating that millions of dollars of unjustifiable losses are being incurred annually by reason of a false sense of security arising out of the custom of accepting statements prepared by interested parties?

I am heartily in favor of standard forms, but it must never be forgotten that the man who overstated his net worth before the adoption of uniform blanks in all probability continues the practice. I have compared your official form of statement with those in use by the bankers and the mercantile agencies, and it is a much better form than any other I have seen.

The forms used by the mercantile agencies are the least scientific of any in general use. As you are vitally interested in the reports secured by the agencies, I would suggest that you use your efforts to have them improve their forms.

If you were to insist, further, that the agencies designate by a suitable mark, say a star, those concerns from which they have secured certified statements, you would, in my opinion, have readily available a roll of honor so far as credit risks are concerned. Within a reasonable time all the good concerns would

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have the designation, the weak ones could not get it, and a considerable percentage of your losses would disappear.

If, then, the compulsory uniform statement has not proved to be the panacea which you hoped for, is it not reasonable to suppose that the suggestion of MR. CANNON referred to, if carried into practice, can do no harm, and possibly may be of unlimited value, by reason of the strength which will be added to the honest and strong concern which presents a certified statement, and the stoppage of credit which will follow where a verified statement is refused?

In an address before the American Association of Public Accountants, Chicago, September, 1912, MR. DAVID R. FORGAN, president of the National City Bank, Chicago, said:

In a bank managed by experienced men, almost all the losses are due to one cause—namely incorrect statements either innocently or wickedly made by the borrower. Any banker of average intelligence can tell a good statement from a bad one—provided it is a true statement. But there's the rub! Is it a true statement? In many cases the revelations coming after bankruptcy prove that the statements recently submitted as a basis for credit were so far from true that they must have been deliberately made to deceive the banker. I say this after making full allowances for change of conditions and point of view. This does not prove, however, that statements are untrue as a general rule. So long as a business is prosperous, there is no need for incorrect statements. Experience, however, proves that few men squarely face the facts when their business drifts into trouble, and still fewer have the courage to reveal the truth to their banker. The result is that between self-deception and moral cowardice the banker is deceived into making loans which entail loss, and which he never would have made had he known the facts.

The experience of professional accountants fully bears out the contention which I have offered to prove. We, of course, find that in practically every case of insolvency or liquidation there has been an overstatement of net worth; but eliminating this class we find solvent concerns are not so careful as they should be with respect to the accuracy of their statements. Here it may be laid largely to optimism, but it is none the less dangerous, for it frequently leads to insolvency and consequent loss to creditors.

We find, for instance, in that vast number of cases where insufficient provision is made for bad debts, other losses, obsolescence and depreciation, that the overstatement of profits leads to excessive withdrawals of profits, so that the actual profits of a concern may be considerable, but if the book profits are largely overstated, the withdrawals from the business, which are natur-

ally based on book profits, are almost sure to be excessive, which inevitably leads to ruin.

In many of these cases, perhaps in most of them, the fault is wholly unintentional. Whether we call it optimism or ignorance, the result is the same and the remedy is the same. What such a concern needs is expert and friendly advice, and this must be based upon an analysis and verification of the financial statements.

Estimates will still be the basis, but the impartial scrutiny of a skillful adviser will tend to revise the estimates by pointing out the errors or weak spots.

If it can be made apparent to the man who overstates his net worth that in fooling himself he is doing himself positive harm, and that the detriment is not offset by the benefit of any temporary extension of credit he may receive, are we not doing him a great service?

Procrastination is as harmful as optimism. The executive knows that some of his assets are overvalued or that liabilities have been incurred or losses sustained which do not appear upon the books; but he does not have the nerve to face the decrease in his net worth which would follow the proper treatment of the items; he hopes that next year will show greatly increased profits; and he promises himself that out of these profits he will adjust his accounts to true values. But the hoped for day never arrives, and year after year he signs a statement which does not correctly set forth his true financial condition.

We have all heard the story of the judge who would not credit the assertion that petitions were worthless as expressing the real opinions of signers, but who changed his mind subsequently, when he was confronted with a petition signed by most of the prominent citizens of his city praying that he (the judge) be hanged.

So it is with statements. They are signed in many cases by business men without the slightest verification on their own part, and if, as is often the case, serious but innocent errors have slipped in, the erroneous statement goes forth uncorrected.

A few days ago I was asked by the president of a corporation, why it was that they had received a bill for the federal excise or corporation tax amounting to some hundreds of dollars when he knew that they had been losing money for the last two years.

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Inquiry developed the remarkable situation that the company's lawyer had prepared the return upon which the tax was based, and being unfamiliar with figures had transposed some of them so that a result was reached which was just opposite to the true one. The president of the company signed the return and made an affidavit to its accuracy.

This would be an unfair example if it represented an isolated case, but every banker, every credit man, every accountant knows that the carelessly executed statement is too often in evidence.

If statements circulated only locally, there would be a most valuable check upon their accuracy. Credit men and bankers by reason of their experience and skill can almost intuitively detect a tendency to an overestimate of net worth. But the average statement of financial condition travels far and wide and it is a physical impossibility for the dispenser of credit to secure what might be termed the "atmosphere" surrounding the enterprise from which the statement emanates.

I know that rules have been formulated for analyzing the several items of assets and liabilities which appear upon the statements, that cleverly drafted forms must be used and skillfully drawn questions must be answered; but I know, and you know, that so long as we continue to be fallible human beings, net worth will be overstated by the marking up of assets or the marking down of liabilities, or by other means which will accomplish the same purpose.

Those whose knowledge of this unfortunate condition has been most keen have for many years favored stricter laws governing the issuance of false statements, and I am glad to say that these efforts have met with a fair measure of success. But vast numbers of incorrect statements are in circulation, the discovery of which does not subject those who are responsible for them to statutory punishment. Uniform false statement laws are being adopted rapidly, and the movement should extend to every state. I wish to take this opportunity to congratulate your association on the vigor and persistence with which you have prosecuted your campaign for improvements in the laws governing the issuance of false statements. HAROLD REMINGTON, ESQ., of the New York bar, in his very admirable little book, *The Laws against False Financial Statements*, states that these laws

in substantially identical form have been adopted within the last four years by New York, New Jersey, Illinois, Ohio, Connecticut, Michigan, Minnesota, Missouri, Montana, New Mexico, Rhode Island and Tennessee—a most respectable and satisfactory showing.

Unfortunately, however, these laws do not reach in any way the inaccurate and misleading statements to which I have thus far referred, for these laws are taken up with crime, with intentional falsification of statements, while there still remains the broad margin—the broadest field of all—the reckless statement, or the statement signed in ignorance, that does harm just the same—like the gun that was not thought to be loaded.

The first section of the new law reads in part: “Any person who shall *knowingly* make or cause to be made any false statement in writing,” etc. Now it must be “*knowingly*” and it must be “false,” and “false” imports fraud, so that the great class, the greatest class, of inaccurate statements which are being used today as a basis of credit is not reached by the new law—this criminal law—admirable as it is.

It undoubtedly checks the crook, but most business men are not crooks, and while none of us would criticize this happy condition, yet we are not helped in our desire to eliminate those incorrect, but not fraudulent, statements which are more apt to lead to losses than the fraudulent ones. You are all familiar with the conundrum which is appearing in the advertising pages of the magazines, “Why is it that we get more wool from white sheep than black ones?” The answer, “Because there are more of them,” illustrates my point. Losses incurred by extension of credit to concerns where no one can be criminally prosecuted are tremendously greater than are those based on fraudulent statements.

Independent verification is quite as important with respect to one class as the other, but in view of the limited time at my disposal, I will not discuss at length the advisability of insisting upon the verification of all statements where the slightest suspicion of irregularities of any kind exists, because the wisdom of such a course is obvious; and it may be taken for granted that all those empowered to insist upon a verification, the bankers and credit men chiefly, will and do recognize the necessity for this step.

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My concern is that verification is least in evidence where it is most needed. It is the trusted employee who defaults. Of course it is, because he is the one who has the opportunity. He is not watched.

The big losses you sustain year in and year out come as a surprise to you from the respectable and honored concerns, the concerns whose statements the bankers and credit men do not verify personally nor cause to be verified by some independent means.

To summarize, inaccuracies arise from:

1. The fallibility of human nature, which with respect to financial statements leads to optimism—the making the best of things, which inevitably leads to the perhaps unconscious overstatement of assets, and understatement of liabilities.
2. The inevitable errors which arise in the use of estimates, honest errors, but errors which almost always result in an overstatement of net worth.
3. Ignorance of executives and clerks, inefficient methods and systems resulting in misleading statements of financial condition. Strange to say such statements nearly always overstate net worth.
4. Consciousness of weak spots, but coupled with a mental reservation to adjust them later.

If we can agree that the factors named are of sufficient importance to warrant an independent verification, if it is true that for his own sake as well as for the benefit of the dispenser of credit, the seeker for credit should have his statement verified, how it is to be done?

While I speak to you as a representative of the profession of accountancy, I would not magnify our worth. I recognize, for instance, that in a financial statement perhaps the most important item is the inventory, and I believe that few are so well qualified to pass upon the actual value of an inventory as a good credit man. I know of no one so well qualified to pass upon the notes and accounts receivable as a good banker. But there is a natural limitation, purely physical, which makes it impossible for the credit men and the bankers to extend their services to those who need them the most, so that whether we like it or not, the public accountants of the country are the only ones

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who are available to act as the intermediaries between the dispensers and the recipients of credit. They are a necessity to the former and a most valuable aid to the latter.

Accountants have learned much and have much to learn. Within the last few years we have been taught the importance of aiming at the "high spots," of magnifying the essentials and minimizing the non-essentials.

Net losses of over \$100,000,000 were sustained through business failures during 1912, and this in spite of a great improvement in credit reporting and credit methods. Most of the failures were of concerns whose financial statements were unverified.

In view of this record and the comparatively small use now made of professional auditors, is it unreasonable or undignified to suggest more active coöperation between credit men and professional accountants for their mutual benefit?

It is not contended that the professional auditor should attempt the manifold duties of the credit man, nor that the latter should burden himself with the technical knowledge required to make an audit. It is, however, urged without fear of successful contradiction that an auditor would be able to render better service to his clients if he could acquire some of the instincts of the successful credit man, and, when making investigations involving proposed credits, keep constantly before him many of the requirements which the science of credits has found to be essential.

Likewise who will deny that the credit man could perform his work more easily and scientifically if he were conversant with the principles, and could take advantage of the experience underlying the practice, of professional auditing?

Office Efficiency as it Affects the Men*

BY LEON ORR FISHER, C.P.A.

Before discussing this topic, let us define "efficiency." The Century Dictionary gives it as "The state of being able or competent; the state of possessing or having acquired adequate knowledge or skill in any art, profession or duty." And in connection with these definitions a substatement is made that "in mechanics, efficiency is determined by the ratio of the useful work performed by a prime motor to the energy expended."

Is it not a fair inference, from these definitions, to say that office efficiency is shown by the ratio of the useful work performed or produced by a minimum force; or, to put it in other words, the getting of maximum results with the minimum of effort? It is not far-fetched, therefore, to say that office efficiency is secured in much the same way as factory efficiency, namely, by working with and applying engineering principles, such as:

First: The study of physical conditions, in order to determine in what way the office or physical plant helps or hinders production;

Second: The elimination or reduction of waste or duplicate motion or effort by any means, methods or machines;

Third: The positioning of groups of workers or departments with reference one to the other, with a view to securing direct forward action, so that the work received at one point will go continuously forward to its completion; and, in the same way, similar positioning of the individual workers within the group, to accomplish the same purpose.

Fourth: The application of ingenious schemes and methods, whereby, through the modification of existing methods or the combination of several forms or lines of work, a new combination can be formed, and one effort made to produce one, two, three, four, five or more results, thus getting numerous by-products of one single effort. In an office with men and women as producers, with sheets, records, files, cards, carbons and machines of numerous kinds, we strive to cut out wasted effort and

* Read before the monthly meeting of Efficiency Society, Inc., New York, May 27th, 1913.

wasted time, useless floor travel and unnecessary absence from desks, and thus apply engineering principles, the goal of which is to create maximum results with minimum effort, maximum results at minimum cost, and maximum results in minimum time. In this effort, moreover, we seek to reduce, as far as possible memory work to a record basis, and hand work to a machine basis, and while so doing to increase the capacity of every intelligent employee by increasing the time at his disposal for brain work as against the time wasted in leg work and hand work. Thus we increase the producing power and personal efficiency of every unit, and secure what our definition calls for: "The raising of the ratio of useful work performed by a prime motor in proportion to the energy expended."

HUMANE PRINCIPLES

While we are primarily seeking increased efficiency and also, as a necessary result, the truest kind of economy, we are also working humanely for the benefit of the men and women engaged in this class of work; because we are relieving them of many of the physical burdens which, under old methods, made them simply drudges and routine workers, and are raising their mental standard because of the increased opportunity to employ brains rather than brawn. In other words, office efficiency depends upon individual efficiency, which, as we understand it, does not mean a rushing, nerve-racking, high-pressure service, but the energetic, orderly and intelligent use of each moment of the working day, and the employment of all means, methods, and mechanical appliances that will secure increased and improved production.

STEPS NECESSARY IN PLANNING FOR AN EFFICIENT OFFICE

In order to see how the physical arrangement of an office may be best adapted to promote the efficiency of the employees, we must consider:

First: That an office is a working tool and not merely a place in which to hive so many workers.

Second: The space must not only be adequate for the present, but with a reasonable margin for probable growth within a period of from three to five years. One of the most serious

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handicaps to office efficiency is the assignment of inadequate space to any branch of work, and the necessarily rapid disorganization brought about from changes which must be made to accommodate growth, these changes in turn disrupting the proper location of desks and files and encroaching upon necessary aisle space. This also thrusts the workers into aisle space and causes loss of proper working space in front of files, etc. All of this results in cluttering up an office, in the loss of its orderly arrangement, and in an unconscious effect upon the clerks, causing them to become careless and unsystematic. Interruptions and congestion of work and workers, loss of time, and everything else which follows, is also the result of this primary lack of adequate space. Therefore, in stating what steps are necessary in planning for an efficient office, I would say, first, that after learning what the organization is, and what each unit of that organization requires, there must follow an equally careful study of the floor plan of the office or building, and a proper apportionment of the space of said office or building so that such divisions or departments shall have sufficient space, not only for their present necessities, but also for reasonable and probable growth within a reasonable period of time.

REQUIREMENTS OF SPACE, ITS DIVISION AND ARRANGEMENT IN SECURING AN EFFICIENT OFFICE

In considering the requirements and division of space in arranging an efficient office, I should say that this question is too broad to be answered in a very definite way. The requirements of space vary with different kinds of work; and what would be adequate for one may be entirely inadequate for another; but there are some suggestions which perhaps may be of practical value. For instance, a man at a standing desk where other clerks are obliged to pass and re-pass him, should not be expected to work in less than 36 inches of aisle space, and if two are working back to back, there should be a minimum of 42 inches between desks. It might be stated here that better results are obtainable when all desks are arranged to have clerks face the supervisor. Where ordinary desk workers are placed in rows, there should be at least 42 inches from the working ledge of one desk to the face of the next desk back,

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in order to give proper chair room for the clerk and proper aisle space back of the chair. Ordinary aisle space used as a thoroughfare should be at least 3 feet wide. The working space in front of any file constantly referred to, should be at least 5 feet; and in relation to the general work-rooms of large concerns, experience has proven that the space essential for each clerical worker averages from 100 to 115 square feet. This includes provision for desk, chair, aisle space, files and equipment.

It is unnecessary, of course, to dwell at length upon the office as a working tool, or to call attention to the vast difference in favor of a modern, up-to-date building, as against an old out-of-date edifice. But I may mention the fact that in order to make your office flexible, and capable of adjustment to growth and changes, you should plan it with as few solid walls as possible; for these interfere with enlargement and change. For the same reason as few partitions as possible should be used. It is hardly necessary, in this presence, to call attention to the great advantage, where problems of supervision are concerned, in having such partitions as are used constructed of glass—and clear glass at that.

LIGHT AND VENTILATION

Next in importance to space are the twin questions of light and ventilation. As to light, the society of which I have the honor of being third vice president is now making extensive trials in its offices between different methods of overhead lighting. In our opinion, there is no question that overhead lighting is preferable to individual desk lighting from the point of view of securing a flexible office, and permitting the maximum number of changes necessary at a minimum expense, to say nothing of the improved appearance of the office and probably of the desk results in conserving the eyesight of the clerks. It is hardly in my province to discuss the various methods of direct and indirect and semi-direct overhead lighting. It may be of interest to you to know, however, that the Curtis Publishing Co. of Philadelphia have recently made an exhaustive study of this subject in conjunction with professors from the University of Pennsylvania, leading oculists and opticians, and others inter-

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ested in the question, not only from the electrical engineering point of view, but from a psychological aspect. As a result, they have decided to install in their important clerical work-rooms an indirect method, in order to get a thoroughly diffused soft light (the equivalent, as near as possible, of daylight). Our experiments with various forms now on the market have not progressed far enough for any practical decision to be made in this respect.

Next in importance to light is certainly the question of ventilation. Every practical man in my audience has undoubtedly observed for himself that improperly ventilated rooms produce upon the clerks as early as 2:30 or 3 o'clock in the afternoon, if not earlier, a peculiar effect which is demonstrated by the large number who find occasion to leave their seats with papers in their hands and walk about from desk to desk, or from floor to floor, without being able to give a plausible excuse for so doing. As you know, however, and as I know, the real reason is that the vitiated air has made the clerk sluggish, and has taken from him all desire to work. It is hard to state this proposition in percentages, but it is certainly conservative to say that the lack of ventilation in the majority of offices may be roughly stated as representing a loss of at least 25 per cent of efficiency in the working force after 2 p. m.—and sometimes a much larger percentage. In proof of this statement I would simply say that to my personal knowledge this condition has induced many insurance offices to decide on early closing, on the ground that little or practically no work is done after 4 o'clock in the afternoon, owing to the mental lassitude of the clerks, which is due to the lack of fresh air. I do not mean to imply by this that all offices closing at 4 o'clock do so on account of poor ventilation, nor that all offices keeping open till 5 or 6 o'clock prove by so doing that they have good ventilation.

I do say, however, that few offices are well ventilated; and the results of bad ventilation have been so generally observed that many persons consider the last hour or hour and a half of the afternoon as a period practically without results. This condition has of course furnished an excuse for early closing to such offices as desired to find one.

A practical illustration of the value of light and air in creating efficiency was given when the crowding of our offices at

130 Broadway made it necessary for us to move the larger portion of our clerical force to our building at No. 2 Albany street, where light, air and space were plentiful. This move increased our efficiency at least twenty-five per cent.

It might interest you to hear a quotation from a report recently made to me by a representative of my department who met with the architects and engineers having charge of these matters in connection with our new offices.

"After visiting, in company with the architects, a number of the most up-to-date office buildings, equipped with various forms of artificial ventilation, I am compelled to believe that a perfect system adapted to general use has not yet been devised, and that the systems now in use are very expensive, to say the least, and their results open to considerable discounting. It was the candid opinion of the engineers in our party that, generally speaking, in work-rooms where the ordinary conditions prevail (some people wanting the windows open, some wanting them closed, etc.) the simplest method is the best: namely, a forced suction to draw out the exhausted air from the top of the room, and sufficient openings or intakes to introduce an adequate supply of fresh air. These intakes should be controlled so as to prevent draughts, but secure a general freshening and movement of the atmosphere. In other words, the exhausted air is withdrawn and replaced by a supply of fresh air in a fashion not easily affected by open windows or shut windows, open or closed doors, etc."

All of which, if true, may be translated into the statement that the majority of buildings are not adequately ventilated, because the majority of builders refuse to pay the price; and that those who are willing to pay the price find that the engineers have no opportunity for sufficient experimenting to reach a satisfactory solution of the problems involved. In the meantime we are necessarily thrown back on the simple problem of getting rid of the stale air and providing somehow a constant supply of fresh air.

It is impossible in a twenty-five minute paper to do more than indicate in the most casual way the problems that come up in connection with making an office or office building into a working tool for an office force. It looks simple enough until you try it, and then the questions multiply until they become legion. The one thing evident is that an efficient office depends largely for its efficiency upon the physical conditions imposed by its

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building. The space must be adequate, the force must be stationed with a view to the passing of the work—that is, the different groups of workers must be made to cog in with one another and create a smooth working machine. Careful study must be made to avoid unnecessary floor travel. Mechanical appliances must be used to bring all the workers into closest proximity with one another by elevators, dumb waiters, mechanical pick-up and delivering devices, and adequate and effective interior telephone service. Long corridors, intervening courts and light wells, fire walls, fire towers, intervening elevator shafts and other building necessities must be carefully studied in this connection.

The location of vaults, store rooms, lavatories, wash rooms, cloak rooms and rest rooms must be studied with a view to keeping the working forces intact and preventing the considerable element of wasted time at the beginning and close of each session (morning and afternoon) as well as the absences which will creep in, unless these matters are carefully considered.

It makes a great difference whether, in a large force of several hundred or several thousand, the clerks' time begins when they enter the building with wraps on, or when they enter the work room ready for business after having put their hats and wraps in their lockers, the arrangements of the office being such that they can do this before they register their time.

It means a great deal in a stenographic department to have proper lavatory facilities so that soiled hands can be washed without leaving the room. It also means a great deal if vaults needed by any division are a part of the physical equipment of that division, making it unnecessary for clerks to leave their own work room to refer to records in the vaults. A considerable percentage of the actual working time of any clerical force is saved if toilet facilities are on the same floor as the work room and not several floors away. It means a large percentage of increased efficiency if clerks are kept at their desks as hand workers and not forced by physical conditions to become leg workers and leave their desks to fetch and carry papers; it means even more if leg workers can be dispensed with, and mechanical means employed to run the errands up and down between floors or between departments.

We must admit that all these things find their natural expression in pay-roll savings.

In this brief outline I have endeavored to indicate that the building plays a most important part in the general question of office efficiency, and I leave this part of our subject with the statement that next to the proper location of help, the proper supervision of same, and the general employment of the most up-to-date labor-saving devices, is the proper planning of a modern up-to-date physical equipment—for the *building* has much to do with increasing or decreasing the pay-roll.

HOW EMPLOYEES SHOULD BE DIVIDED

I might state that in our office we divide our clerks into several classes, namely:

Boys

Junior clerks (male and female)

Senior clerks (male and female)

Special clerks (male and female)

Supervisory and technical (male and female)

with some recognized subdivisions under some of these headings, such as typists, copyists, phonographers, stenographers, adding machine operators, multigraph operators, and addressograph operators. Beyond all these classes are department or bureau heads, junior officers and executives.

In addition to this we have studied the work of each class, and have established a system of minimum and maximum compensations which permits the employment of clerks at a proper and reasonable starting point giving them so long as they continue in the same class an expectation of increased compensation based upon merit and length of service, while compensation beyond the maximum must be secured by promotion. On our part we are endeavoring to provide ways and means for the education of the clerks of one class so as to make them eligible to enter the classes above them.

HOW FAR SPECIALIZATION OF ACTIVITIES SHOULD BE CARRIED

As to how far specialization of clerical activities should be carried, I would state that this is too broad a subject for more

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than mere mention here. I am a great believer in specialization; in fact, to my mind that is what complete organization requires. The work of each division must be analyzed and properly distributed among those who by specializing are enabled to handle the largest possible volume in the shortest possible time and with the smallest possible liability to error, while it is also easy to fix responsibility for work done. But there is a point of safety beyond which specialization cannot be carried, in that we must have understudies to each and every position so that the employee's resignation, vacation or absence from any other cause will not handicap the work, and so that we may at all times be prepared to make promotions; therefore, we do specialize in every department, but within well defined limits.

RELATION COMFORT OF EMPLOYEES BEARS TO THEIR EFFICIENCY

I believe a contented mind is the secret of good work, and while many things may contribute towards securing a contented mind, one of the first and most important is the physical comfort and health of the clerk. For this reason we are giving considerable study to everything entering into that problem.

In order to establish such mental contentment, we are, as before stated, studying the problems of ventilation, light, etc., and have established a hospital service as well as periodical health examinations under the supervision of a doctor and trained nurse. Also, with this in view, we have established for our women employees a rest room; and have a welfare committee (a sub-committee of our general committee on efficiency and economy) who are seeking in every way to secure both in our present offices and in our prospective offices those conditions which will contribute to the physical comfort of our employees. In this connection, we may say that there are larger questions that enter into the problem of securing the contented mind of which we spoke, and which our welfare committee and all our officers are planning in various ways to bring about. For instance, we have a plan whereby we provide a certain sum of insurance for all our permanent employees who have been one year or more in the employ of the company, continuing during their term of service. We have also recently inaugurated a pension scheme providing under varying conditions for those who have grown old in the service and passed the age limit, this

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pension being a reward for long, faithful, and satisfactory service.

We are at the present time formulating plans for the opening of a coöperative store at which our employees may buy many of the necessities of life at little more than cost price.

In all of these things we are seeking to create conditions, both physical and mental, which will enable our clerks to give us their undivided time and thought and best efforts, with a feeling of contentment in their position and loyalty to and pride in their company.

HOW PROPER REST PERIODS MAY BE OBTAINED

The problem of fixing proper rest periods has not as yet been brought very forcibly to our attention because of the nature of our work and the short hour schedule of our office. Normally, we work from nine in the morning until four in the afternoon, and with few exceptions these hours are very generally maintained throughout all the departments. Now and then, of course, there are exceptions, for this uniform year around early closing was adopted with the distinct understanding that it held good so long as the work was kept up. We can very well understand how in certain forms of machine work or prolonged routine work of monotonous character certain rest periods for the relief of operators would be necessary; but our work is so free from monotony that the necessity of relief during the short period of nine to twelve or from one to four does not occur. In this connection we would also mention the fact that we close on Saturdays at twelve, and this also relieves the strain of the week's work. For such machine work as we do employ, as for example the addressograph, photostat, multigraph, etc., we use automatic and power-driven machines, and thereby eliminate even for that class of operators the necessity of rest periods.

HOW ENDEAVOR MAY BE STIMULATED AND REWARDED

We are familiar with many of the methods employed along this line, and believe in the general principle, but have not as yet elaborated any very extensive system. Our company for some years past has been going through a process of reorganization, a great many promotions have been made, and advancement

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for a great many has been rapid. This condition has, to a large extent, deferred the necessity and the opportunity for working out any special scheme for stimulating and rewarding endeavor. We have, however, under consideration at the present time the working out of such a plan, and the creation of various means of recognizing special work and special endeavor, by a series of emblems of honor and rewards. In this connection, we have in operation at the present time a plan whereby the clerks who have made certain meritorious records for perfect attendance and efficient work may have certain privileges granted them in the way of extra time off, etc.

As stated before in connection with the salary scheme which has been recently inaugurated, the various plans made to induce clerks to study for and seek promotions from class to class are in themselves the most effective means of stimulating and rewarding endeavor. In other words, the reward will come with promotion, and the promotions are encouraged.

Finally, I would say that the real secret of office efficiency lies in the human factor—the right man or woman in the right place. The first selection must be made intelligently. We cannot make silk purses out of sows' ears; and the standard first established must be maintained; this means proper methods for the development of the fit and the discovery of the unfit; and not least important, there must be a continuous process of elimination of the unfit. The supervision must be right; the administration just.

If it is true, as you have often heard, that Mark Hopkins at one end of a log and James A. Garfield at the other, make a first-class university anywhere at any time, it is also true of any business that a working force of one hundred per cent efficient workers under first-class supervision can produce first-class results, in spite of many handicaps in building, methods, and working tools; but it is also true that a workman of the highest skill equipped with tools of the highest order can unquestionably do better work and more of it in the same time and at less cost. And this is our problem in office efficiency; namely, to combine the best workers, the best tools and the best supervision to get the best results in the least time and at the least cost. There is nothing so dear as cheap help; nothing so cheap as the most efficient workers.

The Treatment of Interest on Manufacturing Investment

BY ARTHUR BERRIDGE, C.P.A., LL.B.

In the discussion as to whether or not interest on investment should form a part of manufacturing cost, I am strongly of the opinion that it should not, and I beg to submit the following reasons in support thereof:

1. Where the proprietors furnish the necessary capital

The full earning capacity of any business is the total revenue it is capable of producing under maximum efficiency, after being adequately capitalized. If the proprietors furnish the necessary capital, and proper cost records are kept, they will disclose true costs without considering the question of interest on investment. In fact such an item would be improper.

Let us suppose a business man to be seeking an investment. He has in mind several classes, but he is favorably disposed toward bonds. In his choice of a bond he takes several elements into consideration, but foremost among them are security of principal and the largest revenue consistent with such security. Let us note that he cannot obtain this revenue without parting with his principal. Let us also note that in calculating his profit on said investment, he does not consider as an expense interest on the principal invested in said bond. Now if, after due consideration, he also decides to establish some manufacturing enterprise, because (let us hope) he expects to obtain larger returns, is it not as logical for him to discard such an extraneous item as interest on his investment, and to deal rather with the real elements entering into his cost? If this is done, it will be an easy matter to see the true results, to decide what net profit has been made, what per cent it bears on his investment, and which investment is more remunerative.

2. Where the capital is borrowed

Interest on investment should not be included as manufacturing cost when the capital necessary to finance the business is borrowed. If the full capital is supplied by the proprietors, they

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will enjoy the full amount of profits earned. But if a portion of the necessary capital is borrowed the contributors of such portion must share in the profits of the enterprise with the proprietors. It is true that large contributors are called bondholders and that their share of the profits bears the appellation "interest on bonds," but a mere name cannot change the nature of the transaction, and in accounting matters it is the nature that determines the proper place for an item in a statement. If this interest, therefore, be a payment out of profits earned (as it unquestionably is) instead of an item to be considered in determining what profits are earned, I say it has no place in cost accounts.

Again, let us remember that the ostensible object of cost accounts is to show a proprietor what his manufactured product costs. Accountants are laying special stress on the importance of this branch of accounting. They state that it marks another milestone on the road to perfection in accounting matters; also that concerns which do not provide for production costs are behind the times, etc. These statements are no doubt true, but if we vitiate cost accounts with extraneous matters like interest on investment, it seems that we are vainly seeking after accuracy in costs, and further that the real reason why some manufacturers take kindly to it is because it furnishes them with an imaginary item with which to augment the sales price of the product. Why should we place among manufacturing costs an item which is really no cost of the product, but rather in the nature of a penalty that the proprietor should pay out of his share of the profits on account of his not furnishing the capital necessary for the proper and efficient conduct of the enterprise?

Rent

The fact alone that one proprietor owns the building in which he manufactures, should not cause a discrepancy in costs between his product and that of another manufacturer who rents his factory space. If other things be equal, both costs should agree. All accountants will no doubt assent to this statement, though the method employed in obtaining the result may be criticized. As I view the facts, and as already stated, it is a proprietor's (or co-proprietor's, in the case of a partnership or corporation) duty properly to capitalize the undertaking, and while this cap-

italization includes machinery and equipment, it also includes buildings. Indeed it is necessary to provide the building before the machinery can be installed. Now, if he fails to provide for said building, and as a consequence some one else comes to the rescue and erects one for which a rental has to be paid, is it not clear that this is an item chargeable against the proprietor's share of profits earned by the enterprise for him? By what logic should it be charged against manufacturing cost? It seems to me that if a manufacturer owns his building no charge should be made in the accounts for rent, because things are as they should be. He is furnishing the necessary capital, and he is entitled to all the net profit earned. If, however, he has no building, he is delinquent in his capitalistic duties and rent must be paid; but this should be charged against his profits, and should not affect the cost accounts, since they are not meant to be an index for registering apparent increased or lessened costs dependent upon the manner in which capital is raised. I am well aware that in making such statements, I am departing from what is considered standard accounting practice, yet I am expressing my convictions on the subject. I trust that this discussion will continue for some time and that many ideas will be expressed, as I would like to see this much mooted question settled by the consensus of opinion among accountants.

A Problem in the Distribution of Expense Burden

(*A Paper for Accounting Students*)

BY H. C. BENTLEY, C.P.A.

(First Article)

The accompanying problem in cost finding is designed to illustrate in a limited and somewhat elementary manner the distribution of manufacturing expenses according to the principles set forth in A. HAMILTON CHURCH's two works, *Production Factors* and *Proper Distribution of Expense Burden*. The problem is purely suppositional, the figures given not illustrating the results of any one plant's operation. Nor has any effort been made to present figures which are relatively correct. The sole function of the problem is to illustrate the workings of the methods of distributing expense burden in so far as they may be reflected through a set of ledger accounts and thence into the balance sheet, condensed statement of production costs, and profit and loss statement.

The writer does not claim that the titles of the operating accounts are ideal, nor that the general scheme of classification could not be improved. A lesser or greater number of accounts might be employed in working out such a problem as the one presented, and the titles of these accounts might be very different from those given here. Such differences of classification and ledger captions would not affect the principles involved. For the sake of simplicity it is assumed that all of the accounts employed are carried in the general ledger.

It is taken for granted that those interested in this problem are reasonably familiar with the principles of expense distribution as laid down by MR. CHURCH; also with the forms and functions of records commonly used in connection with a manufacturing accounting system where monthly costs are determined.

MR. CHURCH defines a production factor as "any expense that has a *definite* relation to cost of production." Production factors may be divided into three general classes:

(1) Direct labor.

- (2) Materials, finished parts, etc., which are directly chargeable to specific production orders or processes.
- (3) Expense burden, more commonly termed manufacturing expenses, overhead expenses, or indirect production expenses.

A production center is a machine, workman's bench, open floor space for assembling, vat, etc., used directly in producing or assembling finished products or parts. It does not comprehend machines and spaces which are not used directly in producing, such as power house equipment, machine room equipment, elevators, grindstones, transport equipment, or space used by stores department, receiving department, shipping department, etc.

The first two elements of production cost are comparatively easy to handle in a cost system, because they are capable of being charged directly to the specific production orders or processes into which they enter.

To aid in properly allocating the materials and finished parts which go to make up finished goods, these are requisitioned from stock, and from these requisitions the accounting department determines the quantities of the various kinds of materials and finished parts to be charged to each production order or process. On these stock requisitions is shown the date, quantity and description of each item required, the number of the production order or process for which they are required, the name of the person by whom the requisition is made, etc.

To allocate labor charges properly, the time devoted to each job by the operatives is recorded on time cards or time tickets, a separate daily time card or ticket being made out for each operative. In many cases a new ticket is made out for each production order or process on which the operative is engaged during the day. Under this latter plan, if an operative worked on six different jobs during a day, he would receive and turn in a separate ticket for each one of these jobs, or six time cards or tickets for the day. The tickets or cards give the accounting department the necessary data for labor charges.

From the detailed material requisitions and time records, the accounting department is able to determine the cost of raw materials, finished parts, and direct labor chargeable to each active production order or process. At the close of each month, the total cost of each of these direct elements is debited to manu-

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facturing account, the credits being made to raw materials, finished parts, and pay roll accounts respectively.

The third element, overhead expense, is extremely difficult to handle satisfactorily, because it is an indirect charge. The great problem is to ascertain what part of the cost of power, heat, light, repairs, depreciation, taxes, insurance, superintendence, etc., is chargeable to each production order or process. The enumerated expenses, together with the various other elements of expense which go to make up the expense burden, may be common to all production orders, and to apply these specifically and equitably so as to determine the unit cost of each kind of product manufactured is the difficult part of cost finding. The present problem deals more particularly with this third element of production—the expense burden.

In MR. CHURCH's two works already referred to, he has dealt almost exclusively with the third element of production, showing the weaknesses and defects of the man-rate, man-hour, and old machine-rate methods of distributing overhead expense and explaining in detail the advantages of what he terms the scientific method of distributing expense burden. Briefly, his method consists in establishing the proper classification of the elements of expense burden, in determining the fixed, and estimating the variable expenses for a year in advance, and in distributing these over the different production centers in order to determine the proportion of the total annual expense burden which is chargeable to each production center, *i. e.*, each machine, bench, open floor space, etc., used in producing and assembling manufactured products.

It might be well to state here that a shop consists of production centers (machines, workmen's benches, assembling spaces, etc., used directly in production) and non-producing departments or spaces (such as receiving department, superintendent's office, office for factory clerks, stores department, shipping department, tool room, etc.).

Establishing a proper classification to cover the various elements of expense burden is work for an accountant, but estimating these various elements, exclusive of those which are fixed and tolerably constant, is *not* work for an accountant, as it requires a knowledge of production technique and also a very complete knowledge of the conditions peculiar to the plant for

which the system is being designed, which the accountant ordinarily does not possess. The accountant may designate the data required and prepare schedules for properly classifying such data, but the estimating should be done by persons who are expert in that work or who are particularly familiar with conditions.

On subsequent pages are shown fourteen schedules which give some idea of the manner in which the various elements of expense burden—some fixed but most of them estimated—are mustered under classified headings. In these schedules both the monthly and yearly charges are shown with respect to each element, the annual charge being determined in advance and the monthly charge being fixed at one-twelfth of the annual charge. Obviously in practice it would be inaccurate to allot to each month just one-twelfth of the annual expense burden, since some months include a less number of working hours than others, as a result either of their being shorter months or of their including a greater number of Saturdays, Sundays or other holidays. The monthly charges of the accompanying schedules are estimated as one-twelfth of the annual charges for the sake of simplicity. It might be preferable in some cases to divide the year into thirteen periods of four weeks each.

In actual practice the schedule should show the annual charges in the first column, with twelve additional columns following—one for each month—in which should be entered the proportion of each element applicable to the month for which that column stands. Then the footing of the first column—column of annual charges—would equal the sum of the footings of the twelve monthly columns—no two of which might exactly agree.

The following method for determining the proportion of each element of expense burden which applies to a given month suffices for all practical purposes. Estimate the total normal working hours for one year, each month of the year to be considered separately in making this estimate. If Saturday is a short day, it will be necessary to take this into calculation. A schedule should be prepared showing the number of working hours for each month. To compute the proportion of each element of annual expense burden applying to a given month, divide the annual amount by the total estimated working hours for the year. This gives the amount of expense burden chargeable to

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each hour, and this multiplied by the estimated working hours for the given month gives the total normal charge for that month. Insert this product under the proper month on a line with the title of the element under consideration. In like manner compute the monthly production of each element for each of the twelve months. The items shown under any given month are used in the monthly journal entries for that month.

It is an excellent idea to keep a record in a loose-leaf ledger or on cards for each production center, showing its annual charge for each element of expense burden, its normal working hours per diem and per annum, and its hourly rate. This record should show the number of actual hours worked during each month, the lost time and the overtime. If found desirable, an hourly rate for overtime of each center may be estimated, and these overtime rates may be used in charging overtime to production centers.

To estimate the overtime rate of a given center, determine the ratio of its annual elements of expense burden which are affected by overtime to its total annual expense burden, and multiply its normal hourly rate by this ratio. When overtime rates are employed, the overtime of each center should be recorded on the cost sheets or cards separate from the normal time and preferably in a different color of ink. The total cost of normal time of centers is debited to manufacturing and credited to estimated manufacturing expenses account. The total cost of overtime of centers is debited to manufacturing and credited to overtime of production centers account. The actual cost of working centers overtime may be debited to overtime of production centers at the same time that the various operating accounts which show increased charges as a result of working overtime are credited. Of course overtime rate would not be employed if it were known in advance that certain or all production centers would be operated overtime during a given month or longer period. In such case the estimated running times would contemplate such overtime.

Attention is called to the order of the fourteen schedules which are brought in later, beginning with land expenses and closing with estimated manufacturing expenses—so called because the majority of items composing the expense burden are not fixed. Land expenses are first assembled and distributed on

a definite logical basis. Then the expenses of the different buildings are assembled and distributed, and so on, each group of expenses being assembled and distributed according to the year in which they, or at least some portion of them, find their way to the final summing up place—estimated manufacturing expenses. The basis of apportioning each element of expense burden is fully discussed in MR. CHURCH'S work *Production Factors*, to which reference is made.

Having determined the fixed, and estimated the variable elements of expense for one year in advance; having scheduled all of them under properly classified headings; and having distributed the annual charge for each element over the twelve months; the next step is to determine the proportion of each element which applies to each production center.

Building expenses (including a proper proportion of land expenses), expense of lighting, and expense of heating are apportioned on the basis of the floor area utilized by each production center. The floor area of each center (shown on diagram, page 40) is determined in the process of computing the total usable floor area of the factory, as the total usable floor area must, of course, represent the aggregate of the areas apportioned to the various producing and non-producing centers or departments.

Taxes and insurance on production centers are based on the relation which the cost of each center bears to the aggregate cost of all centers. Repairs is an estimate in which each center is separately considered. Depreciation is based on a flat rate per annum for each center. Power expense is apportioned on the basis of estimated H. P. consumption of each center which requires power. Oil, waste and grease used are based upon an estimate which considers each center separately.

The remaining elements, representing indirect personal services (superintendence, clerk hire, buying, receiving, stockkeeping, etc.) must be apportioned on whatever may be considered the most equitable basis; i. e., each center must be charged with its share of these elements. To decide each center's share intelligently, practical judgment and a careful consideration of all conditions which have a bearing upon these elements in their relations to the various centers, are necessary.

A separate schedule should be made out for each production

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center, after the manner illustrated by schedule No. 15. If there are several similar machines, benches or open spaces, constituting duplicate centers, it is necessary to compile only one schedule for each group of duplicate centers. Thus, if there were twenty duplicate spinning machines, one schedule would suffice as it would show the hourly rate to be charged for each of the twenty centers. By dividing the proportion of annual expense burden applicable to a given production center by the number of hours it is expected to be operated during the ensuing year (its normal running time per annum), the quotient will represent the cost per hour for operating that particular production center.

The time which each production center is operated on each production order or process is usually determined from the time records of the operatives, and such time is recorded on the proper cost sheets or cards, a separate sheet or card being kept for each production order or process. At the close of a month the time of each production center charged on each cost sheet or card is totaled, and each total is multiplied by the rate per hour referred to in order to determine the proportion of expense burden chargeable to each of the active production orders or processes. These separate products are recorded on the proper cost sheets or cards. The sum of these products should represent the total fixed and estimated elements of expense burden applicable to the month, provided all of the production centers have worked the estimated number of normal working hours allotted to that month.

Of course each of the three elements of production (direct labor, material, and expense burden) may be allocated to the various jobs or subdivisions of a production order when deemed practicable. The term "production order" as used in this problem corresponds to what MR. CHURCH calls "works order." Sub-production orders correspond to what MR. CHURCH terms "jobs."

It will thus be seen that each production center is placed upon an independent basis. It must, if it may be so expressed, pay for itself (depreciation) and also for its proportion of the remaining elements of expense burden, and it will do this if the rate per hour is correctly computed and if it is employed the estimated number of normal working hours. If it works less than the estimated normal running time, its owner is the loser by reason of lost efficiency. It will further be seen that

each production order or process is charged with its proper proportion of productive expense burden on the basis of the number of hours each center works on that particular order or process. If there is idle time of production centers to dispose of, an extra assessment may be levied on each active order or process to cover the loss resulting from this unproductive expense burden. The extra assessment is levied according to the total number of hours which the different centers work on each active order or process during a month, as explained hereafter.

Accounts are kept in the ledger to correspond with the fourteen schedules given hereafter. The monthly debits to these accounts agree with the corresponding monthly columns on the schedules. The credits show that the debits have been distributed to some other account or accounts. The final summing-up account—estimated manufacturing expenses—shows by its monthly debit footing the total fixed and estimated elements of expense burden applicable to the month.

If every production center works its normal number of hours during a month, all the estimated and fixed elements of expense burden will be distributed among the production orders or processes because the total of hours worked by each production center on each production order or process is charged for at an hourly rate which includes a proper proportion of the elements of expense burden. These computations are made at the close of each month. The sum total of all such charges to the active production orders or processes will agree with the monthly charges to estimated manufacturing expenses account, provided every center has been operated at its normal running time. If the aggregate charge to the production orders or processes to cover expense burden is less than the sum of the debits to estimated manufacturing expenses account, then, generally speaking, there is a loss from idle time of production centers to be levied upon the active production orders or processes. Under ordinary conditions the loss occasioned from idle time of production centers would never amount to a very large figure as compared with the total expense burden.

If the undistributed expense burden is to be assessed to the active orders or processes it becomes necessary to distribute the loss from idle centers and also the loss from idle time of operatives on some arbitrary basis, as the man-rate, man-hour, or

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"supplementary rate." In other words, if certain or all of the production centers have worked less than their estimated normal running time, a portion of the annual expense burden applicable to the month in question will remain undistributed over the production orders or processes. This residue will represent the cost of lost time production centers and may be distributed, as suggested, by the man-rate or the man-hour, or by means of what MR. CHURCH terms the "supplementary rate."

The cost of lost time of operatives may be distributed in the same manner by dividing the sum of the residue referred to, plus the lost time of operatives, by the total hours worked by all production centers, the quotient being the ratio of loss from idle time to actual running time and showing the amount of this loss which must be charged against each hour's time of actual working. This quotient should be multiplied by the total time of centers charged on each cost sheet or card during the month, regardless of the time of each production center, and the product should be recorded thereon. The aggregate of these products should equal the amount of the undistributed expense burden plus the cost of any lost time of the operatives. It might be desirable to distribute the lost time of centers and lost time of operatives separately. The first distribution, based upon the actual running time of the production centers, provides a means of determining costs on a normal basis, while the second distribution, based upon the "supplementary rate," provides a means of determining costs under abnormal conditions. Each result is shown separately, thus affording consistent comparisons in costs quite regardless of whether the conditions are normal or abnormal, and yet affording equally valuable comparisons of results based upon the actual conditions existing.

If desired, however, the undistributed expense burden of centers, and the lost time of operatives, may be charged direct to some nominal account such as "Lost Time of Centers and Operatives," instead of being distributed among the active jobs or processes. This plan is consistent with the idea advanced by those who contend that lost time of centers and operatives is a dead loss, and *not* a proper charge to production costs. MR. CHURCH states: "Under any circumstances, the rate is simply a memorandum of the ratio of waste to production. It is in no sense a cost, since it can afford no information of service

either for estimating or for comparison with past or future jobs of the same kind. It merely represents the accidental circumstances of the shop during the period, and to that extent is a barometer of conditions." It is "the ratio of wasted capacity to utilized capacity."

No mention has yet been made of the difference which may exist between variable elements of expense burden as estimated and as actually incurred. As stated heretofore, all the elements of expense burden, except those that are fixed, are estimated for a year in advance. This is a requirement precedent to the workings of MR. CHURCH'S methods. At first sight this appears theoretical and unscientific. As a matter of fact it is usual and absolutely necessary to estimate many of the elements of expense burden in advance when monthly costs are computed under any costing system. Thus, such elements as depreciation and taxes must be estimated in advance, and so much repairs, unless the monthly repairs as incurred are charged in place of a fixed monthly charge for which a reserve is provided. There are also certain fixed charges which can be determined in advance with accuracy, such as insurance, interest on capital if that element is to be included, etc. Then there are various elements which are tolerably constant, such as the annual salaries of officers, department heads, office help, wages of watchmen, etc. There are also certain elements of expense burden which it is impossible to estimate in advance with absolute accuracy, such as fuel consumption, water rates, lighting, power plant wages, receiving, warehousing and storing wages, oil, waste, and grease used, etc.

As a general proposition, neither the fixed charges nor the tolerably constant charges are affected by lost time or overtime of production centers. Of course, depreciation and repairs are influenced somewhat by overtime on the assumption that production centers depreciate more rapidly and require more repairing if they are worked overtime, but they do not depreciate in the same ratio, provided the rate of depreciation contemplates obsolescence, as well as wear and tear. It is also a question whether the necessity for repairs is increased proportionately by reason of working overtime. Certainly it would not seem desirable to attempt any adjustment of the reserve accounts for depreciation and for repairs and renewals by reason of working production

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centers overtime or undertime, unless it was known in advance that the shop was to be run on short time or extra shifts, in which case the estimated normal running time of centers would contemplate such conditions. The reserve accounts for repairs and renewals may be either closed each year, or carried forward in the expectation that their balances will be equalized during the following year, the particular practice as to this depending upon the policy adopted.

Various operating expense accounts are kept with the fixed elements, tolerably constant elements, and fluctuating elements of expense. Such accounts are credited each month with the estimated or fixed amounts applicable to the month, and at this time estimated manufacturing expenses account is debited. The operating accounts are debited with the actual expenses as incurred. All such accounts, except the depreciation reserve accounts, show by their balances the difference between the estimated expenses and the actual expenses incurred. The question is, Shall such differences be disposed of each month? Or, shall only the balances of those accounts representing variable expenses be thus disposed of? Or, shall all such differences be carried forward until the close of the final year and then be disposed of? If the last course is adopted it will be necessary to determine from such of the accounts as involve one or more of the non-manufacturing departments (selling, shipping, and general administration), the proportion of each of their balances which applies to one or more of the departments mentioned above. Journal entries should then be made transferring these proportions to their proper departments. The adjusted balances of the operating accounts which involve the non-manufacturing departments, together with the balances of the operating accounts which apply exclusively to manufacturing, should be transferred to the adjustment of estimated manufacturing expenses account, the net balance of which will show the difference between the actual expense burden incurred during the year and the estimated expense burden for that year. Of course, the adjustment account is closed into profit and loss, but in the annual report it should be merged into the item of manufacturing expenses.

Actual conditions should largely determine the manner of disposing of the balances of all accounts representing variable elements of expense burden. In case of lost time these accounts

should normally show credit balances, and in case of overtime the reverse condition would hold. In the summer, the fuel consumption and lighting accounts may show credit balances which will be equalized by heavier charges in the winter months, and reversed conditions may apply to water rates, oil, waste and grease used, etc. Such accounts as office supplies used, miscellaneous expense accounts, etc., may fluctuate quite widely as between months and yet such fluctuations may equalize during a year regardless of the effect of overtime or undertime. In view of these conditions it would not seem desirable to adjust the differences between the estimated and the actual elements of expense burden each month, except in the case of a heavy run of overtime, in which case all excess expenses which can be traced to overtime should be distributed as explained hereafter. Or, if desired, an hourly rate for overtime may be estimated for each production center. In such case the normal time is charged for at the normal rate and the overtime at the overtime rate. The credit for the former would be taken into the estimated manufacturing expenses account, while the credit for the latter would be taken into overtime of production centers account, against which should be charged the cost of working overtime as determined from the operating accounts, which must be credited.

If the time worked by production centers during a month exceeds the estimated normal working hours for that month, then the aggregate amount of expense burden charged on the cost sheets or cards would exceed the estimated expense burden applicable to that month, thus leaving a credit balance in the estimated manufacturing expenses account instead of a debit balance as in the case of idle time. Since the fixed hourly rate of each production center contemplates the total annual fixed expenses, including such charges as taxes, insurance, interest, wages of watchman, salaries of persons who are not paid for overtime or who would not necessarily work overtime even though the operatives did, it follows that the amount of expense burden charged to each production order or process is excessive. Overtime will, of course, cause more expense for power, heat, light, oil, waste and repairs, and depreciation to a limited extent, etc. If overtime occurred infrequently, or if the amount of overtime in any one month was not large, it might be desirable to let the credit balance to estimated manufacturing expenses

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account stand, and close it out annually into the adjustment of estimated manufacturing expenses account.

If it is deemed advisable to dispose of the credit balance of estimated manufacturing expenses account, it may be accomplished as follows: Determine from the various operating accounts which show by their balances the differences between the estimated and the actual expenses, the cost of running production centers overtime. Deduct this cost from the credit balance of the estimated manufacturing expenses account and distribute the difference negatively over the active production orders or processes on the "supplementary rate" basis. It will then be necessary to make a journal entry debiting estimated manufacturing expenses account with an amount equal to the credit balance, crediting manufacturing with the balance distributed negatively, and crediting the different operating accounts with the amounts used in determining the total expense of working production centers overtime. This method would not be resorted to if an overtime hourly rate for each center were used in charging overtime to production centers.

It seems hardly wise to consider the various reserve accounts for repairs and depreciation when determining the expense of working production centers overtime, since these accounts are based upon an estimate which is at best more or less of a personal guess, and also because depreciation does not contemplate wear and tear only. The efflux of time frequently plays a large part in determining the actual depreciation of wasting fixed assets.

As a matter of general information, it seems desirable to touch briefly upon two features that have a direct bearing upon the subject under discussion, although they are in no way related to the particular problem submitted.

Where automatic machines are employed, MR. CHURCH advocates the inclusion of the tenders' wages in the hourly rate of such production centers. If a man is employed to tend four automatic screw machines, or three automatic turning lathes, his wages are included in the hourly rate prescribed for each of the centers he tends. If he tends four machines, and is paid at an hourly rate of twenty cents, the hourly rate of each of the four machines would include five cents to cover his wage. This introduces a factor which must be provided for by an additional

operating account under some such heading as "Wages of Automatic Machine Tenders." Like all other accounts kept with variable elements of production, this account should be credited at the end of the month with the estimated cost of wages of operatives employed in tending automatic machines; and at the same time Manufacturing Expenses should be debited. The actual cost of such operatives' wages, as per monthly analysis of pay roll, should be debited to Wages of Automatic Machine Tenders, and credited to Pay Roll.

Where automatic or semi-automatic machines are used, and the operatives who tend them are paid on piece-work basis, it may be found desirable to establish standardized unit rates embracing both burden and wages of tenders in place of the hourly rate. To carry out this method, determine the expense burden applicable to each production center in the same manner as prescribed for the hourly rate method. In a weaving room, for example, all machines of the same make, type and cost would bear the same proportion of expense burden. Now determine by several careful tests, made on different days, under conditions as diverse as the circumstances permit, and giving due consideration to the maximum and minimum skill and speed of the operatives, how many units (*i. e.*, pecks, yards, feet, dozens, thousands, barrels, etc.) should be turned out by a given machine in, say, an hour. As the volume of work accomplished is influenced by the skill, speed and trustworthiness of the operatives, it will not be advisable to adopt as a fair basis the volume of work turned out by the most skilled and dexterous tender, nor will it be fair to determine the measure of reasonable efficiency by the work of the least skilled and dexterous operative. The mean average of the two extremes, however, should be a fair index to the efficiency that may reasonably be expected; or possibly the average of this medium with the highest point of efficiency would afford a proper basis in determining the volume of work which should be turned out by each operative. Having determined the volume of work which should be turned out by a given center in say, an hour, it remains to divide the hourly expense burden of that center, plus the proportion of the tender's wages applicable thereto, by the number of units constituting a normal hourly output. The product will represent the cost per unit for expense burden and direct labor. This unit rate,

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multiplied by the number of units turned out during a month, or in connection with a given production order, will produce the total cost of expense burden and direct labor chargeable to the process or production order, as the case may be.

This method of distributing expense burden and direct labor by means of a standardized unit rate results in determining costs on an ideal basis; and if that ideal is attained in every instance and constantly throughout the year, there will be no undistributed burden to dispose of. But since the result depends so largely on the variable human factor, it follows that each job will be charged with the expense burden and direct labor that should suffice for it if the established standard of efficiency is lived up to, not with the actual expenditure in either respect. And, therefore, the cost of the job so determined will reflect an ideal or predetermined cost, based upon what should be accomplished, rather than the true cost. When this method is used the undistributed burden represents the net difference between the ideal and actual burden—some jobs costing more than they should, and others less.

It is obvious that this method is not as sound from an accounting standpoint as the hourly rate method, since it results in costs as they should be rather than in costs as they are; and also because it is entirely dependent upon the judgment of the person who establishes the measure of efficiency used in determining the unit rate—a matter in which no two persons might exactly agree. If predetermined costs are to be used there is very little use for a cost system, save to exhibit the difference between the predetermined costs and the actual costs. Such differences might point to glaring inefficiency; but the practical man would first question the basis for measuring efficiency; and it might be difficult to check up efficiency standards so that they would agree with those previously established, and also satisfy the management of their correctness.

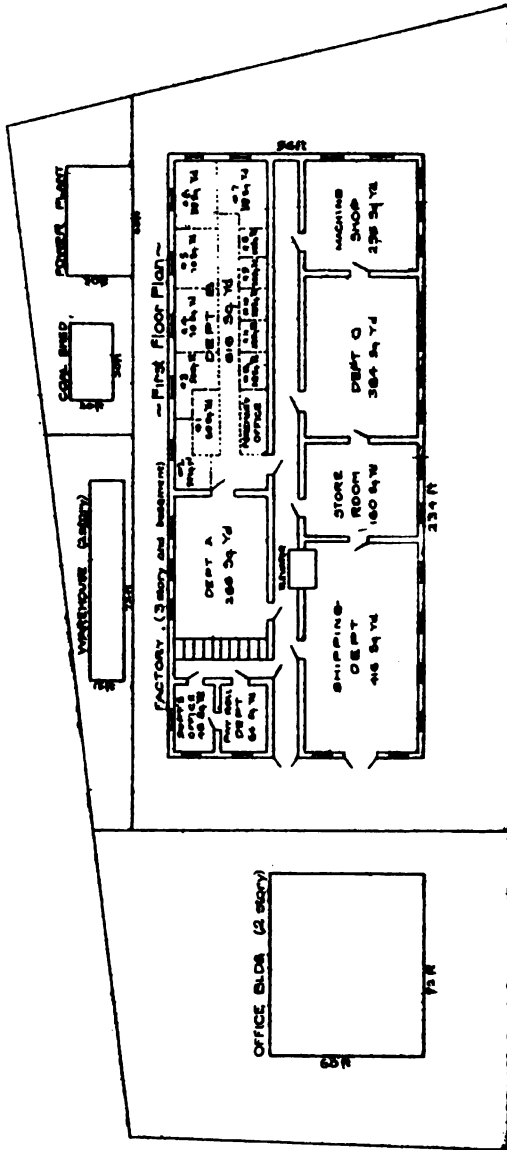


DIAGRAM SHOWING POSITION OF BUILDINGS
AND LAND SPACE ALLOTTED TO EACH

In Department B is shown the floor space
allotted to each production center
a) Space for marketing and selling
a-b) Machine - Machines
c-b) - Barabur

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A. H. C. MANUFACTURING COMPANY

**TRIAL BALANCE SHOWING THE BALANCES OF THE LEDGER ACCOUNTS ON
APRIL 30, 1913, BEFORE THE MONTHLY ADJUSTING ENTRIES ARE POSTED**

Land	\$ 4,200.00	
Buildings	69,000.00	
Reserve for depreciation of buildings		\$ 8,300.00
Production machinery and equipment	48,000.00	
Reserve for depreciation of production centers ..		12,740.00
Power plant machinery and equipment	20,000.00	
Reserve for depreciation of power plant machinery and equipment		4,362.00
Main line shafting, hangers, belting, etc.	20,000.00	
Reserve for depreciation of main line		5,000.00
Machine shop machinery and equipment	12,000.00	
Reserve for depreciation of machine shop machinery and equipment		2,196.00
Small tools	2,650.00	
New work—machine shop (new machines in course of construction)	718.74	
Office equipment	8,080.00	
Reserve for depreciation of office equipment.....		3,462.00
Goodwill	75,000.00	
Income-producing real estate:		
Land	5,000.00	
Workmen's cottages	36,000.00	
Reserve for depreciation of workmen's cottages..		7,200.00
Treasury stock	17,600.00	
Treasury stock donated (500 shares of common)		50,000.00
Cash	13,862.00	
Accounts receivable	184,838.00	
Notes receivable	26,254.00	
Notes receivable discounted		18,415.00
Interest accrued on notes receivable	116.00	
Finished goods	151,000.00	
Manufacturing (goods in process)	77,627.00	
Raw materials	236,000.00	
Fuel	426.00	
Oil, waste, grease, etc.	386.00	
Factory supplies and repair parts	3,762.00	
Interest prepaid on notes discounted	967.00	
Insurance premiums prepaid	357.00	
Office supplies	589.00	
Mortgages payable (5½%)		50,000.00
Accounts payable		42,000.00
Notes payable (discounted at bank)		75,000.00
Interest accrued on mortgages payable		458.33
Taxes accrued		710.28
Pay roll	38,000.00	
Power plant wages	48.00	
Superintendent's and foremen's salaries		88.00
Factory clerk hire	32.00	
Shipping department wages		27.50
Wages of cost accounting staff	116.00	
General office salaries	72.00	
Wages of watchman		
Receiving and warehousing wages	40.00	
Wages of storekeeper and assistants	12.50	
Machine shop wages		82.40

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Reserve for upkeep of grounds		26.80
" " repairs to office building		15.00
" " " warehouse building		9.00
" " " power plant building	27.00	
" " " factory building		15.00
" " " production centers		816.00
" " " power plant equipment...	98.00	
" " " main line		31.00
" " " machine shop equipment.		2.14
" " " workmen's cottages		73.00
Capital stock		500,000.00
Surplus		178,033.52
Fuel consumption	32.00	
Oil, waste and grease used		28.60
Office supplies used	26.24	
Moving ashes		2.97
Hauling inward	62.25	
Lighting	43.00	
Miscellaneous expenses of superintendence.....		14.22
" " " pay roll department.	11.44	
" " " shipping department.	19.50	
" " " organization		25.00
" " " machine shop		17.00
Cost of goods sold	276,487.00	
Sales		401,416.00
Selling expenses	15,827.50	
General administration expenses	16,437.00	
Interest on notes payable	985.00	
" " mortgages payable	687.50	
" " notes receivable		153.60
Income from sale of waste		76.40
Maintenance of workmen's cottages	1,107.09	
Income from workmen's cottages.....		960.00
Interest on capital		2,847.00
		\$1,364,603.76 \$1,364,603.76

Sales for April, \$80,000.

Gross income from workmen's Cottages for April, \$250.

REQUIREMENTS AND QUESTIONS *

Requirements

(a) Set up a skeleton ledger account for each item included in the foregoing trial balance and enter its balance on the proper side. Post all monthly journal entries to the proper skeleton accounts, inserting brief particulars.

(b) Compile a trial balance.

(c) Compile a balance sheet (two-side form—fixed items first).

(d) Compile a profit and loss statement covering the month of April, 1913.

* Forms under requirements and answers to questions will appear in the next number of the JOURNAL.

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(e) Compile a summarized statement of production costs covering the month of April, 1913.

Questions

(f) Describe two methods which could be employed in handling the differences between the actual and the estimated variable expenses as disclosed by such accounts as fuel consumption, oil, waste and grease used, lighting, wages, reserve for repairs, etc.

(g) Would the difference between the debits and credits to estimated manufacturing expenses account show a debit or a credit balance in case the normal number of working hours during that month was considerably exceeded? How may that balance be disposed of?

(h) Should the aggregate number of hours worked by production centers during a month agree with the aggregate number of hours worked by operatives on production orders? Suppose the total time of operatives chargeable to production orders during a month was twice the aggregate hours worked by production centers during that month, what possible cause might produce this result?

(i) If during April the following production centers worked the number of hours given on production order No. 429 what would be the aggregate amount of charges on the cost sheet kept with that production order to cover expense burden exclusive of idle time?

Production Center No. A-3	—worked	3 hours at .062
Production Center No. A-4	—worked	7 hours at .1141
Production Center No. A-7	—worked	4 hours at .0244
Production Center No. B-12	—worked	2 hours at .2611
Production Center No. B-14	—worked	14 hours at .0055
Production Center No. C-10	—worked	22 hours at .082
Production Center No. C-11	—worked	25 hours at .0012

(j) How does the aggregate of the above charges get into the general ledger?

(k) If, as a result of idle time in April, it became necessary to distribute by means of the "supplementary rate" \$835.47 to cover undistributed expense burden and \$1,719.54 to cover lost time of operatives—a total of \$2,555.01—what part of this total is chargeable to production order No. 429, assuming that the total hours worked by production centers is 96,420?

(l) If the aggregate time of operatives charged to production orders during April amounts to 151,116 hours, how much should be charged to production order No. 429 to cover its proportion of the debits to estimated manufacturing expenses account if they are distributed on the man-hour basis, assuming the operatives worked the same number of hours as the centers?

(m) If the amount of direct labor charged to production order No. 429 amounts to \$20.00, how much should be charged to cover its share of manufacturing expenses if they are distributed on the man-rate basis?

(n) If the cost of materials charged to production order No. 429 amounts to \$12.00, how much should be charged to cover its share of manufacturing expenses if they are distributed on the basis of material and direct labor cost?

(o) What should the balance of manufacturing account represent after all monthly entries are posted?

Is it a controlling account? If so what is its underlying record and how is that underlying record reconciled with its controlling account?

(p) State briefly how the following costing data may be determined.

Hours worked by each production center.
 Hours worked by each operative.
 Cost of additions to power plant building.
 Cost of repairs to production centers.
 Lost time.
 Cost of direct labor chargeable to the different production orders and standing shop orders.
 Cost of raw materials used.
 Fuel consumption.
 Cost of goods finished.
 Cost of goods sold.

(q) Prepare a diagram showing each operating account, for what it is debited, and into what account or accounts the aggregate of such debits is distributed.

SCHEDULES OF FIXED AND ESTIMATED MANUFACTURING EXPENSES

SCHEDULE I

	Annual	Monthly
LAND (TOTAL AREA 7854 sq. yds.):		
Taxes (estimated)	\$ 75.00	\$ 6.25
Upkeep of grounds (estimated)	125.00	10.42

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Interest on cost—\$4,200 at 5%	210.00	17.50
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Total (\$.0522 per sq. yd. per year, or .00435 per month)	\$ 410.00	\$ 34.17
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DISTRIBUTION OF ABOVE EXPENSES:

Office building—2,182 sq. yds.	\$ 113.90	\$ 9.49
Warehouse building—376½ sq. yds.	19.65	1.64
Power plant building—505½ sq. yds.	26.40	2.20
Factory building—4,790 sq. yds.	250.05	20.84

Total as above	\$ 410.00	\$ 34.17
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SCHEDULE 2

	Annual	Monthly
OFFICE BUILDING:		
Land (2,182 sq. yds. at .0522)	\$ 113.90	\$ 9.49
Taxes (estimated)	240.00	20.00
Insurance	30.00	2.50
Repairs (estimated)	60.00	5.00
Depreciation (2% on cost—\$15,000)	300.00	25.00
Interest on cost—\$15,000 at 5%	750.00	62.50
Total	\$ 1,493.90	\$ 124.49

DISTRIBUTION OF ABOVE EXPENSES:

Buying (1/10)	\$ 149.41	\$ 12.45
Cost accounting (3/10)	448.20	37.35
Selling (2/10)	298.68	24.89
General administrative (4/10)	597.61	49.80

Total as above	\$ 1,493.90	\$ 124.49
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SCHEDULE 3

	Annual	Monthly
WAREHOUSE:		
Land (376½ sq. yds. at .0522)	\$ 19.65	\$ 1.64
Taxes (estimated)	97.00	8.09
Insurance	12.00	1.00
Repairs and upkeep (estimated)	36.00	3.00
Depreciation (2% on cost—\$6,000)	120.00	10.00
Interest on cost—\$6,000 at 5%	300.00	25.00
Total (chargeable to buying, receiving, warehousing, etc.)	\$ 584.65	\$ 48.73

SCHEDULE 4

	Annual	Monthly
POWER PLANT:		
Land (505½ sq. yds. at .0522)	\$ 26.40	\$ 2.20
Taxes (estimated)	114.00	9.50
Insurance	14.50	1.21
Repairs and upkeep (estimated)	72.00	6.00
Depreciation (3% on cost—\$8,000)	240.00	20.00
Interest on cost—\$8,000 at 5%	400.00	33.33
Total (chargeable to power cost)	\$ 866.90	\$ 72.24

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SCHEDULE 5

	Annual	Monthly
FACTORY (2,210 sq. yds.):		
Land (4,790 sq. yds. at .0522)	\$ 250.05	\$ 20.84
Taxes (estimated)	816.00	68.00
Insurance	80.00	6.67
Repairs and upkeep (estimated)	100.00	8.33
Depreciation (2½% on cost—\$40,000)	1,000.00	83.33
Interest on cost—\$40,000 at 5%	2,000.00	166.67
Total (\$1.92 per sq. yd. per year, or 16c per month)	<u>\$ 4,246.05</u>	<u>\$ 353.84</u>
DISTRIBUTION OF ABOVE EXPENSES:		
Superintendence 48 sq. yds.	\$ 92.16	\$ 7.68
Pay roll department 64 sq. yds.	122.88	10.24
Shipping department 416 sq. yds.	798.72	66.56
Buying, receiving and storing.. 160 sq. yds.	307.20	25.60
Machine shop 256 sq. yds.	491.52	40.96
Maintenance of centers 1,266 sq. yds.	2,433.57	202.80
Total as above	<u>\$ 4,246.05</u>	<u>\$ 353.84</u>

SCHEDULE 6

	Annual	Monthly
POWER COST INCLUDING HEAT:		
Space (power plant)	\$ 866.90	\$ 72.24
Wages of engineer, firemen and helpers.....	4,800.00	400.00
Fuel consumption	1,440.00	120.00
Lighting	60.00	5.00
Oil, waste, grease, etc., used	778.00	64.83
Moving ashes	30.00	2.50
Repairs and upkeep on equipment	600.00	50.00
Insurance on equipment, boiler inspection, and accident insurance	26.00	2.17
Taxes on equipment	167.00	13.92
Depreciation of equipment	1,000.00	83.33
Repairs to main line shafting, hangers and belting..	200.00	16.67
Depreciation of main line	600.00	50.00
Interest on power plant equipment	1,000.00	83.33
Interest on main line	1,000.00	83.33
Total (to be allocated as shown hereunder)	<u>\$12,567.90</u>	<u>\$ 1,047.32</u>
DISTRIBUTION OF ABOVE EXPENSES:		
Estimated cost of heating	\$ 1,200.00	\$ 100.00
Power—machine shop	480.00	40.00
Balance, being cost of productive power to be divided by aggregate H. P. consumption of production centers, expressed in hours in order to determine power cost per hour....	10,887.90	907.32
Total as above	<u>\$12,567.90</u>	<u>\$ 1,047.32</u>

A Problem in the Distribution of Expense Burden

SCHEDULE 7

	Annual	Monthly
SUPERINTENDENCE:		
Space (factory—48 sq. yds. at \$1.92)	\$ 92.16	\$ 7.68
Heat (superintendent's office)	36.00	3.00
Salary of superintendent	6,000.00	500.00
Foremen's salaries (exclusive of machine shop foreman)	15,000.00	1,250.00
Clerical help (superintendent's office)	2,200.00	183.33
Light (superintendent's office)	14.00	1.17
Office supplies (superintendent's office)	100.00	8.33
Depreciation of office equipment (sup't's office)....	72.00	6.00
Interest on office equipment	110.00	9.17
Miscellaneous	100.00	8.33
Total (chargeable to mfg. expenses)	\$23,724.16	\$ 1,977.01

SCHEDULE 8

	Annual	Monthly
PAY ROLL DEPARTMENT:		
Space (factory—64 sq. yds. at \$1.92)	\$ 122.88	\$ 10.24
Heat	48.00	4.00
Clerk hire	2,300.00	191.67
Office supplies	250.00	20.83
Light	12.00	1.00
Depreciation of office equipment	48.00	4.00
Interest on office equipment	110.00	9.17
Miscellaneous	100.00	8.33
Total (chargeable to organization)	\$ 2,990.88	\$ 249.24

SCHEDULE 9

	Annual	Monthly
SHIPPING DEPARTMENT:		
Space (factory—416 sq. yds. at \$1.92)	\$ 798.72	\$ 66.56
Heat	120.00	10.00
Wages of shipping clerk and assistants	3,400.00	283.33
Supplies other than packing supplies	200.00	16.67
Light	36.00	3.00
Insurance on finished stock	12.00	1.00
Taxes on finished stock	48.00	4.00
Miscellaneous	100.00	8.33
Total (chargeable to selling expenses)	\$ 4,714.72	\$ 392.89

SCHEDULE 10

	Annual	Monthly
ORGANIZATION (clerical and administrative expenses applicable to factory):		
Space (office building)	\$ 448.20	\$ 37.35
Pay roll department expenses	2,990.85	249.24
Watchman's wages	720.00	60.00
Cost accounting staff salaries	8,300.00	691.67
Office supplies (general office)	350.00	29.17
Heating (general office)	120.00	10.00
Light (general office)	72.00	6.00
Depreciation of office equipment	110.00	9.17

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Interest on office equipment	108.00	9.00
Proportion of officers' salaries	5,400.00	450.00
Miscellaneous	100.00	8.33
Total (chargeable to mfg. expenses).....	\$18,719.05	\$ 1,559.93

SCHEDULE 11

	Annual	Monthly
BUYING, RECEIVING, WAREHOUSING AND STORING:		
Space (office building)	\$ 149.40	\$ 12.45
Space (storeroom in factory—160 sq. yds.)	307.20	25.60
Space (warehouse building)	584.65	48.73
Buying department salaries	6,000.00	500.00
Light (general office, warehouse and storeroom) ..	60.00	5.00
Taxes on raw materials and goods in process.....	86.00	7.17
Heating (general office and storeroom)	120.00	10.00
Insurance on raw materials and goods in process..	16.00	1.33
Wages—receiving and warehousing department....	1,400.00	116.67
Wages of storekeeper and assistant	1,500.00	125.00
Office supplies (general office and storeroom)	200.00	16.67
Depreciation of office equipment	110.00	9.17
Interest on office equipment	110.00	9.17
Hauling inward	1,200.00	100.00
Total (chargeable to mfg. expenses).....	\$11,843.25	\$ 986.96

SCHEDULE 12

	Annual	Monthly
MACHINE SHOP:		
Space (factory—256 sq. yds. at \$1.92)	\$ 491.52	\$ 40.96
Machine shop pay roll	9,500.00	791.67
Power	480.00	40.00
Heat	96.00	8.00
Light	78.00	6.50
Oil, waste, grease, etc., used	360.00	30.00
Insurance on equipment	8.00	.67
Taxes on equipment	166.00	13.83
Interest on equipment	600.00	50.00
Repairs to equipment	200.04	16.67
Depreciation of equipment	600.00	50.00
Miscellaneous	100.00	8.33
Total	\$12,679.56	\$ 1,056.63

DISTRIBUTION OF ABOVE EXPENSES:

Estimated proportion of above expenses applicable to new work	\$ 6,000.00	\$ 500.00
Balance chargeable against reserve for repairs to production factors	6,679.56	556.63
Total as above	\$12,679.56	\$ 1,056.63

SCHEDULE 13

	Annual	Monthly
MAINTENANCE OF PRODUCTION CENTERS:		
Space (factory building)	\$ 2,433.57	\$ 202.80
Taxes	552.00	46.00

A Problem in the Distribution of Expense Burden

Insurance	180.00	15.00
Repairs	9,000.00	750.00
Depreciation	3,000.00	250.00
Interest on cost—\$48,000 at 5%	2,400.00	200.00
Total (chargeable to mfg. expenses)	\$17,565.57	\$ 1,463.80

SCHEDULE 14

	Annual	Monthly
MANUFACTURING EXPENSES:		
Maintenance of production centers	\$17,565.57	\$ 1,463.80
Power	10,887.90	907.32
Oil, waste, grease, etc.	1,200.00	100.00
Heat	408.00	34.00
Light	240.00	20.00
Superintendence	23,724.16	1,977.01
Buying, receiving, warehousing and storing	11,843.25	986.96
Organization	18,719.05	1,559.93
Total (see note below)	\$84,587.93	\$ 7,049.02

PREPARATION OF SCHEDULES

A separate schedule of expenses must be compiled for each production center (including all machines, benches, vats, mixing space, assembling space, etc., used directly in producing, assembling, and packing finished parts and finished products). If there are several machines of the same type a schedule of one of these machines serves for all of them since the rate per hour would be identical. Hence, if there are one hundred different production centers it might not be necessary to compile more than thirty schedules, assuming that there are several machines each of several types, or several benches of the same size, in a given department. Each department should be designated by a letter or number. Each machine, bench, etc., should be numbered, each number being preceded by the department letter or number. After all schedules of expenses of production centers are compiled, the aggregate total should agree exactly with the above total (\$84,587.93). If each annual total be divided by the normal number or working hours per annum, the quotient will represent the manufacturing expenses per hour of each production center.

The following schedule illustrates the method to be employed in compiling schedules for all the production centers. In this specimen schedule it is assumed that the normal number of working hours per annum is 2,700. If it is known that a given production center is worked only part of the regular time, then

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it is obvious that the estimated number of normal working hours per annum of that production center must be used as a divisor in determining the operating cost per hour. A production center might be operated quite infrequently, so that its normal running time would not exceed, say, 300 hours per annum. Obviously its hourly rate would be extremely high as compared with another machine whose normal running time was estimated at 2,700 hours. It is important to bear in mind that the hourly rate of each center must be computed on the estimated running time of that center, regardless of whether it is estimated at 300 or 3,000 hours per annum.

SCHEDULE 15

	Annual
PRODUCTION CENTER B-12:	
Space	\$ 23.04
Taxes	4.80
Insurance	1.50
Repairs	68.00
Depreciation	30.00
Interest	30.00
Power	60.00
Oil, waste, grease, etc.	12.00
Heat	4.00
Light	3.60
Superintendence	216.00
Buying, receiving, warehousing, etc.	72.00
Organization	180.00
Total (\$0.2611 per hour)	<u><u>\$704.94</u></u>

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EDITORIAL

Co-operation Between Bankers and Accountants

Under the title *The Effect of Accountants' Certificates on Commercial Credit* the American Association of Public Accountants is about to publish a booklet based upon the expression of opinion of eight hundred and fifty bankers in various parts of the country given in reply to a request for information relative to the attitude of the banks in the matter of the certification of borrowers' statements by public accountants.

In many ways this book, which is now on the press, is unique and it is not to be doubted that its influence will be considerable inasmuch as it illustrates most vividly the increasing importance which is attached to the work of the public accountant in one direction and by inference shows the increasing influence of accountancy in all commercial and financial affairs.

It has become almost a platitude to say that the profession of accountancy is young and that its spread has been phenomenally rapid, but when we find the representative bankers of the country so heartily endorsing, as they have done in this case, the work of the accountant, it surely may be pardonable to draw attention

once more to the great change which has taken place within a very few years in the commercial importance of accountancy.

One of the foremost bankers in the United States, a man whose name is known far and wide as an advocate of progressive legislation and business practice, has written in reply to a request for his opinion a letter which is an epitome of the replies received from more than eight hundred other bankers.

The following paragraphs are taken from the letter:

When we consider that more than half of the loans made by commercial banks are based on the statements of the borrowers, and that the competition between banks themselves, and between banks and commercial paper brokers is, in ordinary times, very keen, I should think it would be difficult to find a banker who does not approve of the efforts your association is making to have all borrowers' statements certified by public accountants. This is one of those happy cases which combines with the furtherance of your own interests as accountants the purifying and strengthening of the entire system of credits through which nearly all modern business is transacted.

I hope, therefore, you will continue your good work until it is as common to have borrowers' statements properly certified as it is now to have a title examined before purchasing property.

Particular attention is drawn to the second sentence of the first paragraph of the foregoing letter. It is gratifying—and more gratifying because so absolutely true—to find that there is public appreciation of the value of accountancy as a factor in bettering business conditions. There will always be a certain amount of skepticism as to the disinterestedness of the man who claims that his work is for the public good—and it is only human that this claim should be discounted and discountable—but here we find a man not an accountant recognizing that while the object of this wide spread inquiry has not been altruistic solely, there is a public benefit to be derived by the use of those services which the accountants have to offer.

The idea of publishing a symposium of opinions such as that which is embodied in the book in question is unique in the history of accountancy in this country. It sets a useful precedent which no doubt from time to time will be followed as opportunity for the education of the public occurs; and the hearty reception which has been accorded to the proposal for the publication of this book is an earnest of what may be expected when similar publications are judiciously put forward in the future.

Editorial

Without in any way anticipating the force which this book contains it may be said that its contents are an altogether satisfactory evidence of the high esteem in which the profession is held by bankers and of the dependence which bankers place upon the assistance provided by accountants. It is found that in nearly all replies received from the larger cities there is a universal preference for certified statements whether submitted by the borrower personally or by note broker. In other parts of the country where the influence of the accountant has not been widely felt there is, in a few cases, an unwillingness to express an opinion but it is wholly remarkable that out of the eight hundred and fifty replies received only twenty-one can be considered as in any sense opposed to the proposition to require certification and of these twenty-one the majority seemed to have some purely personal reason for making such opposition as was made.

Not long ago a prominent officer of an important association of credit men stated that he wished the American Association of Public Accountants would undertake to obtain the opinion of credit men on this question of the certification of financial statements, and he drew attention to the fact that while bankers are often in a position to require that financial statements shall bear the certification of independent accountants the average commercial credit man is obliged to take the unsupported statement of the man or firm seeking credit facilities. He said that if it were possible to compel applicants for credit to present certified statements of their financial condition the labor of the credit man would be simplified and the risk of commercial loss reduced to the probable minimum.

The time will come when such a suggestion as that above mentioned will receive the careful consideration of the national organization of accountants and no doubt a great deal of good will be accomplished thereby, but in the meantime a most important step forward has been taken and if as seems likely, the bankers show an increasing readiness to coöperate with accountants in the requirement for certified statements, a benefit of untold value will accrue, not only to the accountants, but in equal measure to the banker and his stockholders and depositors and to the applicant for credit whether he be the actual borrower or merely the agent.

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CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

PROBLEM No. 19 (DEMONSTRATION)

The Ironton Manufacturing Company was incorporated July 1, 1910, under the laws of the state of New York, with an authorized capital stock of \$1,000,000, divided into 7,000 shares of preferred, par value \$100 each, and 6,000 shares of common stock, par value \$50 each.

The incorporators subscribed collectively to 10 shares of the preferred stock and paid on account thereof 50 per cent of the par value.

Subsequent to incorporation, a proposal was received by the company from Arthur Drummond, on behalf of Franklin Mansfield and Curtis Blackwell, two of the incorporators, wherein it was proposed to sell to the company for the sum of \$500,000, payable \$400,000 in preferred stock and \$100,000 in common stock, all right and title in the net assets, exclusive of cash, of Mansfield and Blackwell, a copartnership engaged in manufacturing, along lines similar to those proposed by the new company. These assets, exclusive of cash (\$20,000), were carried on the books of the copartnership at \$400,000; Mansfield and Blackwell being equally interested in the assets, but dividing profits in the proportion of three-fifths and two-fifths, respectively.

For the purpose of providing working capital, the proposal of Drummond having been accepted and the stock issued by the company, Mansfield and Blackwell donate to the company 500 shares of the preferred stock.

The assets and liabilities acquired are booked by the company as follows: land and buildings, \$225,000; machinery and tools, \$150,000; furniture and fixtures, \$15,000; accounts receivable, \$125,000; notes receivable, \$40,000; patents, \$25,000; mortgage payable, \$100,000; accounts payable, \$20,000; notes payable, \$10,000.

For the purpose of refunding the mortgage, the company authorized an issue of bonds to the extent of \$125,000 of which a par of \$50,000 was sold at 95 and a further par of \$50,000 at

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110. The life of the bonds was 10 years, and with the proceeds of sale the mortgage was retired.

A firm of bankers, Simpson and Guthrie, agreed to underwrite 1,000 shares of the preferred stock at 90, provided a bonus of 10 per cent in preferred stock was allotted to them, and advanced on account of the contract \$50,000 in cash. The bankers subsequently accounted for the sale of the stock, but did not pay over the balance due. The preferred stock used for bonus purposes was taken from that donated. The balance of the donated stock was sold at 80.

The operating transactions for the six months ended December 31, 1910, were as follows: income from sales, \$100,000; cost of sales, \$60,000 (composed as follows: purchases, \$55,000, less inventory, December 31, 1910, \$15,000; wages paid, \$14,000; manufacturing overhead, \$5,000 paid, \$1,000 accrued); selling expense, \$6,000 paid, \$2,000 accrued; administrative expense, \$11,000 paid, \$1,000 accrued; other income, \$2,000; deductions from income, \$7,000.

On December 31, 1910, the balance of the accounts receivable was \$138,000, and the balance of the accounts payable, \$10,000. Spread the organization expense over a period of two years. Provide for the premium on bonds sold.

Prepare:

The Ironton Manufacturing Company.

(a) General balance sheet, December 31, 1910.

(b) Statement of income and profit and loss, six months ended December 31, 1910.

Mansfield and Blackwell.

Skeleton ledger accounts showing copartnership dissolution.

SOLUTION TO PROBLEM No. 19

Scrutiny of the text of this problem will reveal the fact that it covers a number of different phases. It might almost be considered a review of the preceding problems on corporations with the added feature of building up the cash and other real accounts from the complementary nominal accounts.

The opening entries will not differ from preceding problems, but attention should be given to the fact that the common stock

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differs with regard to par value from the preferred, and this fact should be borne in mind on account of its bearing on subsequent transactions.

Preferred capital stock unissued	\$700,000	
Common capital stock unissued	300,000	
To preferred capital stock authorized		\$700,000
Common capital stock authorized		300,000

To record the organization of The Ironton Manufacturing Company, incorporated on July 1, 1910, under the laws of the state of New York, with an authorized capital stock of \$1,000,000, divided into 7,000 shares of the par value of \$100 each and 6,000 shares of the par value of \$50 each.

The subscription to ten shares of the preferred stock and the payment of cash on account was presumably made by the incorporators in order to comply with the letter of the law and avoid any appearance of not being legally capable of carrying on negotiations looking to the acquisition of the property of Mansfield & Blackwell. The law in New York requires that the amount of capital with which a corporation may begin business shall not be less than five hundred dollars. It is questionable, therefore, if cash had not been paid in on account of subscribed stock, if the corporation could legally have proceeded to acquire the property in question.

Much discussion is had in books, classrooms and elsewhere as to the terminology to be employed in stating the entry covering subscriptions of this kind, but the following seems to be true and accurate and as desirable as any:

Subscribers to preferred capital stock	\$ 1,000	
To subscriptions to preferred capital stock		\$ 1,000
For ten (10) shares of preferred capital stock at \$100 each subscribed by the incorporators.		
Cash	500	
To subscribers to preferred capital stock		500
For 50 per cent of \$1,000 paid by incorporators on account of their subscriptions to 10 shares of the preferred capital stock.		

The entries below which follow closely the text of the problem call for little comment since they are either self-explanatory or are followed by explanations. Where such explanations are not deemed sufficient comments will be inserted.

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Plant and sundry assets	\$500,000	
To Arthur Drummond, vendor		\$500,000
<p>To credit Arthur Drummond, vendor, with the purchase price of the net assets (exclusive of cash) of Mansfield & Blackwell in accordance with proposal and acceptance of July 1, 1910, whereby in consideration of \$400,000 in preferred stock and \$100,000 in common stock said Arthur Drummond is to convey to The Ironton Manufacturing Company all right, title and interest in said net assets, exclusive of cash.</p>		
Arthur Drummond, vendor	500,000	
To preferred capital stock unissued		400,000
Common capital stock unissued		100,000
<p>For payment under terms of contract as above set forth.</p>		
Treasury stock, preferred	50,000	
To stock donation account		50,000
<p>For 500 shares of preferred stock of The Ironton Manufacturing Company, donated by Mansfield & Blackwell for the purpose of providing working capital.</p>		

With regard to the next entry the question may be asked as to how the corporation arrived at the figures which are given for the assets and liabilities. In reply to this it may be pointed out that this was a case of "friendly proceedings." The same men who carried on the business of Mansfield & Blackwell continued with the business merely under a different legal type of organization as The Ironton Manufacturing Company. There is no reason to suppose that these men would have any hesitancy about supplying any information for the books of the corporation or concealing the value at which they placed their goodwill as partners. If the reverse had been true it is to be presumed that the details of notes and accounts would have been obtained from schedules furnished by Mansfield & Blackwell, the mortgage from the instrument itself, while the other assets would have been inventories and either appraised or valued by the purchasing corporation or its representatives. While the goodwill has been treated as the difference between the net assets (\$450,000) and the par value of the capital stock issued (\$500,000) there is no reason why the goodwill might not have been absorbed in the valuation of the assets.

Land and buildings	\$225,000
Machinery and tools	150,000
Furniture and fixtures	15,000

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Accounts receivable	125,000	
Notes receivable	40,000	
Patents	25,000	
Goodwill	50,000	
To mortgage payable		\$100,000
Accounts payable		20,000
Notes payable		10,000
Plant and sundry assets		500,000
First mortgage bonds unissued	125,000	
To first mortgage bonds authorized		125,000
To provide for the issue of \$125,000 first mortgage bonds, the proceeds of which are to be devoted to the extent of \$100,000 to refunding the present outstanding mortgage.		
Discount on bonds	2,500	
Cash	102,500	
To first mortgage bonds unissued		100,000
Premium on bonds		5,000
For sale of \$100,000 par of bonds; \$50,000 at 95 and \$50,000 at 110.		
Mortgage payable	100,000	
To cash		100,000
For retirement of old mortgage out of proceeds of bond issue.		
Simpson & Guthrie	100,000	
To preferred capital stock unissued		100,000
For 1,000 shares of the preferred capital stock issued in blank to Simpson & Guthrie, bankers, under the terms of an underwriting agreement whereby said bankers are to account for said stock at 90 and receive a bonus of 10 per cent in preferred stock.		
Cash	50,000	
To Simpson & Guthrie		50,000
For cash advanced by bankers on account of the above underwriting agreement.		
Organization expense	10,000	
Stock donation account	10,000	
To Simpson & Guthrie		10,000
Treasury stock, preferred		10,000
For adjustments relative to the underwriting contract with the bankers whereby they were to receive 10 per cent for their services and a bonus of 10 per cent in preferred stock.		
Cash	32,000	
Stock donation account	8,000	
To treasury stock, preferred		40,000
For balance of treasury stock sold at 80.		

The following entries have to do with the operations of the six months ended December 31, 1910, from which, together with

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the balances in accounts receivable and payable, the cash account for the six months is built up

Accounts receivable	\$100,000	
To income from sales		\$100,000
Purchases	55,000	
To accounts payable		55,000
Inventory (new)	15,000	
To purchases		15,000
Wages	14,000	
Manufacturing overhead	6,000	
Selling expense	8,000	
Administrative expense	12,000	
Deductions from income	7,000	
To cash		43,000
Expenses accrued		4,000
Cash	2,000	
To other income		2,000
Accounts receivable (new)	138,000	
To accounts receivable (old)		138,000
Accounts payable (old)	10,000	
To accounts payable (new)		10,000
Cash	87,000	
To accounts receivable		87,000
Accounts payable	65,000	
To cash		65,000

The last three entries are those which have to do with adjustments incident to the closing of the books, namely, writing down the organization expense, spreading the net premium on bonds over the life of the bonds and closing out the stock donation account to capital surplus.

Profit and loss	\$ 2,500	
To organization expense		\$ 2,500

One-quarter of \$10,000, corresponding to the period of six months on a basis of a two-year period over which the organization is to be written off.

Premium on bonds	125	
To profit and loss		125

For one-twentieth of \$5,000 the net premium on bonds sold showing the proportion applicable to the six months' period on a basis of ten years.

Stock donation account	32,000	
To capital surplus		32,000

To close out the stock donation account, the balance representing the amount realized on preferred capital stock donated.

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In connection with the above entries it is possible that the amount of organization expense written off might be appropriately charged against capital surplus instead of profit and loss. In fact objection could scarcely be found if the entire amount of the organization expense were to be charged immediately to the stock donation account. To follow either of the suggestions would certainly be conservative. There appears to be little choice between charging capital surplus and charging profit and loss. The latter method has perhaps a shade the better of the argument, since there is a well settled theory concerning organization expense which considers it a proper charge against operations extending over a period of time.

If the journal entries above given are to be posted to skeleton ledger accounts or set up on a working sheet a trial balance will result. From such trial balance there may be prepared the statements relative to The Ironton Manufacturing Company required by the problem and which appear below:

THE IRONTON MANUFACTURING COMPANY

GENERAL BALANCE SHEET—DECEMBER 31, 1910

<i>Assets</i>	<i>Liabilities and Capital</i>
Land and buildings .....\$225,000	Pfd. C/S Auth....\$700,000
Machinery and tools 150,000	Less unissued ... 200,000 \$500,000
Furniture and fixtures 15,000	Com. C/S Un. ... 300,000
Patents and goodwill 75,000	Less unissued ... 200,000 100,000
Current assets:	1st Mtge. Bd. Au.. 125,000
Materials and supplies,	Less unissued ... 25,000 100,000
Inventory 15,000	Subscription to pfd. capital
Cash 66,000	stock 1,000
Accounts receivable 178,500	Current liabilities:
Total current assets.\$259,500	Accounts payable 10,000
Notes receivable 40,000	Notes payable 10,000
Organization expense 7,500	Accrued expenses 4,000
Total assets .....\$772,000	Total current liabilities.\$ 24,000
	Premium on bonds 2,375
	Capital surplus 32,000
	Profit and loss surplus 12,625
	Total liab. and capital.\$772,000

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THE IRONTON MANUFACTURING COMPANY

STATEMENT OF INCOME AND PROFIT AND LOSS FOR THE SIX MONTHS ENDED DECEMBER 31, 1910

Income from sales	\$100,000
Cost of sales	60,000
Gross profit on sales	\$ 40,000
Selling expense	8,000
Selling profit	\$ 32,000
Administrative expense	12,000
Net profit on sales	\$ 20,000
Other income	2,000
Total income	\$ 22,000
Deductions from income	7,000
Net income—profit and loss	\$ 15,000
Profit and loss—credits:	
Premium on bonds	125
Profit and loss—gross surplus	\$ 15,125
Profit and loss—charge:	
Organization expense—written off	2,500
Profit and loss—surplus—December 31, 1910	\$ 12,625

The third requirement of the problem relative to the accounts of Mansfield & Blackwell is found in the following journal entries and skeleton ledger accounts:

Cash	\$ 20,000	
Miscellaneous assets	400,000	
To Mansfield—capital		\$210,000
Blackwell—capital		210,000
Ironton Manufacturing Co.	500,000	
To miscellaneous assets		400,000
Profit and loss		100,000
Preferred stock	400,000	
Common stock	100,000	
To Ironton Manufacturing Co.		500,000
Profit and loss	50,000	
To preferred stock (donated)		50,000
Profit and loss	50,000	
To Mansfield & Blackwell		50,000
Mansfield capital	240,000	
Blackwell capital	230,000	
To Mansfield & Blackwell—capital		470,000
Mansfield & Blackwell	470,000	
To preferred stock		350,000
Common stock		100,000
Cash		20,000

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<i>Misc. Assets</i>		<i>Mansfield & Blackwell, Capital</i>	
400,000	400,000	20,000	240,000
		100,000	
		350,000	230,000
<i>Mansfield, Capital</i>		<i>Blackwell, Capital</i>	
240,000	210,000	230,000	210,000
	30,000		20,000
<i>Cash</i>		<i>Ironton Mfg. Co.</i>	
20,000	20,000	500,000	500,000
<i>Preferred Stock</i>		<i>Profit and Loss</i>	
400,000	50,000	50,000	100,000
	350,000	50,000	
<i>Common Stock</i>			
100,000	100,000		

PROBLEM NO. 19-A (PRACTICE)

The Sedgwick Manufacturing Company was incorporated under the laws of the state of New York, on July 1, 1912, with an authorized capital of \$1,000,000, divided into 7,500 shares of preferred and 2,500 shares of common, of the par value of \$100 each. The incorporators each subscribed to and paid for 20 shares of the preferred stock. Sundry other persons subscribed to 50 shares of the preferred stock and paid 25 per cent on account thereof.

At the first meeting of the stockholders, a proposal was received from Franklin Chance, acting in behalf of C. B. Murray and H. B. Forbes, two of the incorporators, in which the business of Murray & Forbes, a copartnership, was offered to the corporation for \$500,000, payable \$400,000 in preferred stock and the balance in common stock; the corporation to receive all the goodwill and property of the copartnership except cash \$25,000, and to assume all the liabilities. A balance sheet of Murray & Forbes, June 30, 1912, showed Murray's capital as

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\$225,000; Forbes, \$200,000. Profits are divided according to capital. The proposition was accepted and the stock issued.

Murray and Forbes donate 400 shares of preferred stock to provide working capital, and the assets and liabilities acquired are set up on the books of the corporation as follows: land and buildings, \$250,000; machinery and tools, \$125,000; furniture and fixtures, \$17,000; accounts receivable, \$123,000; notes receivable, \$45,000; patents, \$20,000; bond and mortgage payable, \$125,000; accounts payable, \$30,000; notes payable, \$20,000.

For the purpose of retiring the bond and mortgage payable the company authorized an issue of 6 per cent bonds in the amount of \$150,000, payable July 1, 1922. The bonds were sold at an average price of 102½ and the bond and mortgage was refunded.

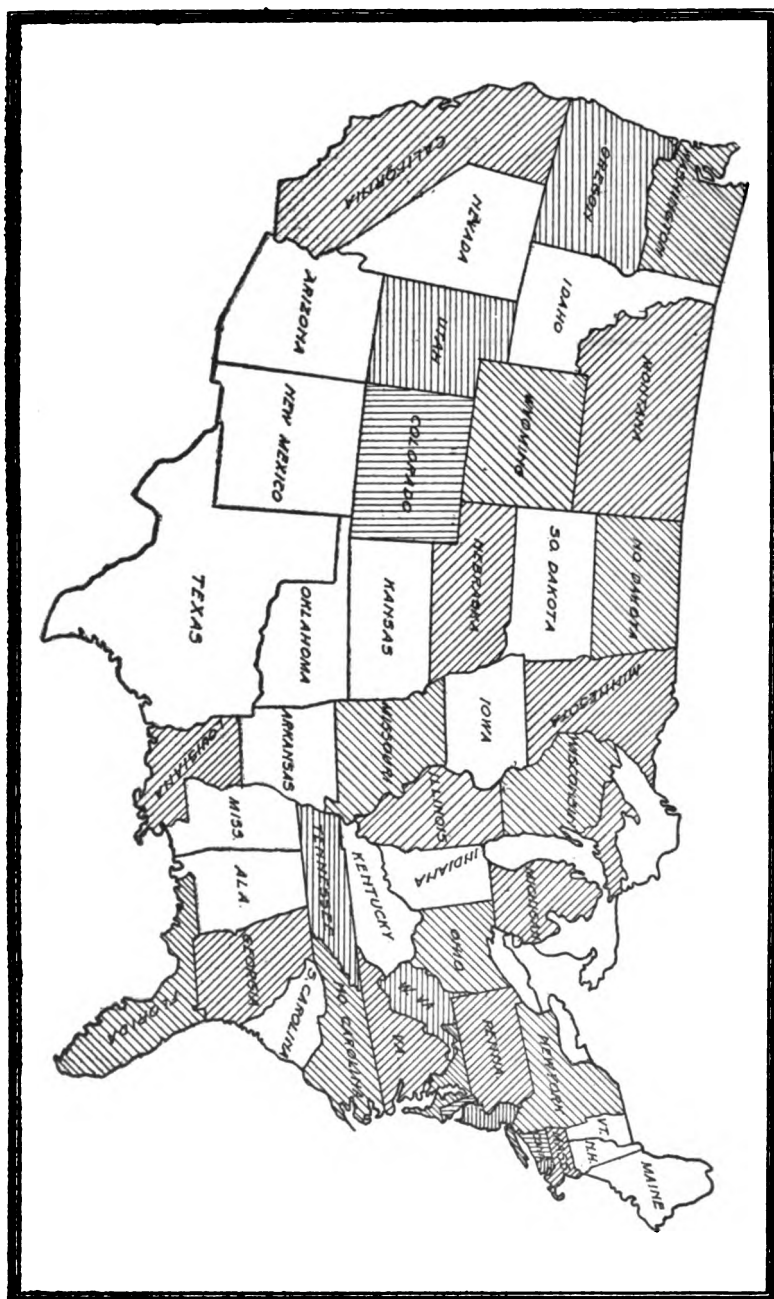
The Molten Trust Company agreed to underwrite 1,500 shares of the preferred stock at 85 upon condition that they receive in stock a bonus of 10 per cent. The trust company advanced \$75,000 on account. The bankers subsequently accounted for the sale of the stock but did not pay over the balance due. The stock used for bonus purposes was taken from that donated. The balance of the donated stock was sold at 85.

The operating transactions during the six months ended December 31, 1912, were as follows: income from sales, \$95,000; cost of sales \$50,000 (made up of purchases, \$65,000, less inventory, December 31, 1912, \$35,000; wages paid, \$13,000; wages accrued, \$1,000; manufacturing overhead paid, \$6,000); selling expense, \$7,000; administrative expense paid, \$10,000; administrative expense accrued, \$2,000; other income, \$125.62; deduction from income, \$4,500; provision for bad debts, \$500. On December 31, 1912, the balance of accounts receivable was \$136,000; accounts payable, \$10,000; no new note transactions except extensions. Spread the discount on the preferred stock over a period of five years. Provide for the premium on bonds sold.

Prepare:

- (a) General balance sheet, December 31, 1912.
- (b) Statement of income and profit and loss for the six months ended December 31, 1912.
- (c) Closing entries, books of Murray & Forbes.

The Spread of Accountancy Legislation



Map showing the thirty states (shaded) in which there are laws providing for the issuance of certified public accountant certificates

C. P. A. Laws

Delaware C. P. A. Law

Following is the text of the C. P. A. law enacted by the state of Delaware:

AN ACT to regulate the practice of Public Accountant in the State of Delaware.

Be it enacted by the Senate and House of Representatives of the State of Delaware in General Assembly met:

Section 1. That any person who has received from the State Board of Accountancy a certificate of his qualifications to practise as a Public Expert Accountant as hereinafter provided shall be known and styled as a "Certified Public Accountant" and no other person and no partnership all of the members of which have not received such certificate and no corporation shall assume such title or the title of "Certified Accountant" or "Chartered Accountant" or the abbreviations "C.P.A." or "C.A.," or any other words, letters or abbreviations tending to indicate that the person, firm or corporation so using the same is a Certified Public Accountant.

Section 2. There is hereby created a state board of accountancy to consist of three members to be appointed by the Governor and who, with the exception of the members first to be appointed, shall be the holders of certificates issued under the provisions of this act and shall hold office for the term of three years and until their successors are appointed and qualified.

The members of the board first to be appointed shall be skilled in the practice of accounting and shall have been actively engaged therein on their own account within this state for a period of at least two years next preceding the passage of this act, and shall hold office, one for the term of three years, and one for the term of two years and one for the term of one year. The term of office of each is to be designated by the Governor in his appointment.

Section 3. No certificate as a Certified Public Accountant shall be granted to any person other than a citizen of the United States, residing or having a place for the regular transaction of business in the state of Delaware, who is over the age of twenty-one years and of good moral character and (except under the provisions of section 5 of this act) who shall have successfully passed an examination in "theory of accounts," "practical accounting," "auditing" and "commercial law as affecting accountancy," and in such other subjects as the board may deem advisable.

No person shall be permitted to take such examination unless he shall for a period of at least three years have been employed in the

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office of a Public Accountant as an assistant accountant, or shall have been practising as a public accountant on his own account, and who shall not at least three years prior to the date of said examination have successfully passed a preliminary examination in such subjects as may be prescribed by the board touching his general education, qualifications and fitness as an accountant, provided that the board may in its discretion waive the preliminary examination of any applicant who, in its opinion, has had a general education equivalent to that which may be prescribed by its rules and is otherwise qualified.

All examinations provided for herein shall be conducted by the board of accountancy herein provided for. The time and place of holding examinations shall be duly advertised for not less than three consecutive days in one daily newspaper published in each of the places where the examinations are to be held, not less than thirty days prior to the date of each examination.

The examination shall take place as often as may be necessary in the opinion of the board, but not less frequently than once each year.

The board may make all needful rules and regulations regarding the conduct of the examinations or their character or scope, the method and time of filing applications for examinations and their form and contents, and all other rules and regulations necessary to carry into effect the purpose of this act.

Section 4. The state board of accountancy may in its discretion waive the examination of and issue a degree as certified public accountant to any person possessing the qualifications mentioned in section 3 of this act, who

(1) is the holder of a "C. P. A." certificate issued under the laws of another state, which extends similar privileges to certified public accountants of this state, provided the requirements for said degree in the state which has granted it to the applicant are, in the opinion of the board of accountancy, equivalent to those herein provided.

(2) shall be the holder of a degree of certified public accountant or chartered accountant, or the equivalent thereof, issued in any foreign government, provided that the requirements for such degree are equivalent to those herein provided for the degree of certified public accountant.

(3) is a resident of this state and who for more than two consecutive years next before the passage of this act shall have been practising in this state on his own account as a public accountant, and who shall apply in writing to the board for such certificate within six months after the passage of this act.

Section 5. The state board of accountancy may revoke any certificate issued under this act, or may cancel the registration of any certificate under this act for unprofessional conduct or other sufficient cause, provided that written notice of the cause for such contemplated action and the date of the hearing thereon by the board shall have been mailed to the holder of such certificate at least twenty days before such hearing.

Delaware C. P. A. Law

No certificate issued under this act shall be revoked until such hearing shall have been held. At all such hearings the attorney-general of this state or one of his assistants designated by him shall sit with said board with all the powers of a member thereof.

Section 6. The state board of accountancy shall charge for the examination and certificate provided for in this act, a fee of twenty-five dollars (\$25.00) to meet the expenses of such examinations. This fee shall be payable by the applicant at the time of making his initial application. No additional fee shall be charged any applicant.

From the fees collected under this act the board shall pay all expenses incident to the examinations, the expenses of issuing certificates, traveling expenses of the members of the board and their compensation while performing their duties under this act, provided that no expense incurred under this act nor the compensation of the members shall be a charge against the funds of this state.

The members of the board of accountancy herein provided for shall be paid an amount not exceeding ten dollars (\$10.00) per day to each member of said board for the time actually expended and also all necessary traveling expenses incurred in the performance of his duties under this act.

The board shall report annually the number of certificates issued and the receipts and expenses under this act to the Governor, and any surplus then in the hands of the board above the sum of five hundred dollars (\$500.00) which may be retained to meet future expenses, shall be paid, at the time of filing of said account, to the state treasurer for the use of the state.

Section 7. If any person shall represent himself to the public as having a certificate provided for in this act, or shall assume to practise as a certified public accountant without having received such certificate, or if any person having received such certificate provided for in this act shall thereafter lose the same by revocation and continue to practise as a certified public accountant, or use such title or any other title mentioned in section 1 of this act, or if any person shall violate any of the provisions of this act, he shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined in a sum not less than one hundred dollars (\$100.00) or more than five hundred dollars (\$500.00) or imprisoned in the county jail for a period of not less than one month nor more than six months, or both, in the discretion of the court, for each day during which he shall so practise or violate any of the provisions of this act.

Section 8. This act shall take effect immediately upon its passage.

CHAUNCEY P. HOLCOMB,

Speaker.

GEO. W. MARSHALL,

President *pro tempore*.

Approved March 31, 1913.

CHAS. R. MILLER,
Governor.

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North Carolina C. P. A. Law

North Carolina has enacted the following law providing for the certification of public accountants in that state:

AN ACT to create a state board of accountancy and prescribe its duties and powers; to provide for the examination and issuance of certificates to qualified applicants, with the designation of certified public accountant, and to provide the grade of penalty for violation of the provisions hereof.

The General Assembly of North Carolina do enact:

Section 1. Within thirty days after the passage of this act, the Governor shall appoint four persons to constitute a state board of accountancy. Three members of said board shall be persons skilled in the knowledge and practice of accounting and actively engaged as professional accountants within the state of North Carolina, and the other a recognized attorney of the state, being of good standing as such.

Sec. 2. The members of such board shall hold office for three years or until their successors are appointed and have qualified, except that of the members first appointed under this act, one shall hold office for one year, one for two years and two for three years. The term of office for each to be designated by the Governor in his appointment. Upon the expiration of each of said terms a member shall be appointed by the Governor for the term of three years, and after this date the members of said board shall be appointed from among the holders of certificates issued under this act.

Sec. 3. The board shall determine the qualifications of persons applying for certificates under this act, and make rules for the examination of applicants and the issue of certificates herein provided for.

Sec. 4. The board shall organize by the election of one of its members as president, one member as secretary and one member as treasurer: Provided, however, that the office of secretary and treasurer may be held by one person.

Sec. 5. The treasurer shall give bond to the state in such sum as may be determined by the board.

Sec. 6. The board shall keep a complete record of all its proceedings, and shall annually submit a full report to the Governor.

Sec. 7. The board shall grant certificates of qualification to such applicants, as may, upon examination, be qualified in "theoretical" and "practical" accounting, "auditing," "commercial law" as affecting accountancy, and in such other subjects as the board may deem advisable. A majority of the board shall constitute a quorum and the vote of three members shall be considered as the action of the board.

Sec. 8. Any citizen of the United States, or person who has duly declared his intention of becoming such citizen, over the age of twenty-one years, of good moral character, being a graduate of a high school

North Carolina C. P. A. Law

or having had an equivalent education, who has had at least three years' experience in the practice of accounting, and has passed a satisfactory examination as herein provided, shall be entitled to a certificate to practise accounting and shall be styled and known as a certified public accountant.

Sec. 9. The examination shall be held as often as may be necessary in the opinion of the board, and at such times and places as it may designate, but not less frequently than once in each calendar year.

Sec. 10. The board shall charge for each examination and certificate provided for in this act, a fee of twenty-five dollars (\$25.00). This fee shall be payable to the treasurer of the board by the applicant at the time of filing application. In no case shall the examination fee be refunded, but said applicant may be re-examined within eighteen months from the date of his application without payment of an additional fee.

Sec. 11. The members of the board to be appointed under the provisions of this act shall be paid for the time actually expended in the pursuance of the duties imposed upon them by this act, an amount not exceeding ten dollars per day, and they shall also be entitled to necessary traveling expenses.

Sec. 12. From the fees collected, the board shall pay all expenses incident to the examination to be held under this act, the expenses of preparing and issuing certificates, the traveling expenses of examiners, and their compensation while performing their duties under this act, provided, that no expense incurred under this act shall be charged against the state. Any surplus arising shall at the end of each year be deposited by the treasurer of the board with the state treasurer to the credit of the general fund.

Sec. 13. Any public accountant who files his application (and be it understood that by "public accountant" is meant one actively engaged and practising accountancy as his principal vocation during the business period of the day) within ninety days after the organization of the board, and is at the time of filing said application a public accountant and has practised as such for at least three years next preceding the date of his application, the last six months of which has been in the state of North Carolina, shall file with his application proof of such facts. The board shall consider said proofs and such other evidence as may be procured, and if it be satisfied that the statements contained in said application and proofs are true, and that the applicant is of good moral character, it shall accept the foregoing evidence in lieu of examination and grant said applicant a certificate.

Sec. 14. Any citizen of the United States or person who has declared his intention of becoming such citizen, over twenty-one (21) years of age, of good moral character, and who has complied with the rules and regulations of the board pertaining to such cases, and who holds a valid and unrevoked certificate as certified public accountant, or the equivalent thereof, issued by or under the authority of any other state of the United States, or of the United States, or the District of Columbia,

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or any territory of the United States, or by or under the authority of a foreign nation, when the board shall be satisfied that their standards and requirements for a certificate as a certified public accountant are substantially equivalent to those established by this act, may at the discretion of the board receive a certificate as a certified public accountant, and such person may thereafter practise as a certified public accountant and assume and use the name, title and style of "Certified Public Accountant," or any abbreviation or abbreviations thereof, in the state of North Carolina, provided, however, that such other state or nation extends similar privileges to certified public accountants of the state of North Carolina.

Sec. 15. The board may revoke any certificate issued under this act for sufficient cause, provided that written notice shall have been mailed to the holder of such certificate at his last known address at least twenty days before any hearing thereon, stating the cause of such contemplated action, and appointing a time for a hearing thereon by the board; and, provided, further, that no certificate issued under this act shall be revoked until such hearing shall have been had. At all such hearings the attorney-general of the state or one of his assistants designated by him shall sit with the board with all the powers and pay of a member thereof.

Sec. 16. If any person shall represent himself as having received a certificate as provided in this act, or shall practise as a certified public accountant, or use the abbreviation "C. P. A." (without specifying the state that granted said certificate) or similar words or letters to indicate that the person using the same is qualified to practise in this state as a certified public accountant, without having received such certificate as provided for by this act, or if any person having received a certificate as provided for in this act, and having thereafter lost such certificate by revocation as herein provided, shall practise as a certified public accountant, he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than fifty dollars and not exceeding two hundred dollars for each offense.

Sec. 17. Nothing herein contained shall be construed to restrict or limit the power or authority of any state, county, or municipal officer or appointee engaged in or upon the examination of the accounts of any public officer, his employees or appointees.

Sec. 18. That all laws and clauses of laws in conflict with the provisions of this act are hereby repealed.

Sec. 19. That this act shall be in effect from and after its ratification. In the General Assembly read three times and ratified this the 12th day of March, 1913.

E. L. DAUGHTRIDGE,
President of the Senate.

GEO. W. CONNOR,
Speaker of the House of Representatives.

North Dakota C. P. A. Law

North Dakota C. P. A. Law

Following is the text of the C. P. A. law enacted in North Dakota as published in the *Popular Edition of the Session Laws of 1913*:

CHAPTER II

(H. B. No. 328—Norheim)

Board of Accountancy

AN ACT to Regulate the Certification of Public Accountants and the Practising of the Professor (*sic*) of Accountancy in North Dakota.

Be it enacted by the Legislative Assembly of the state of North Dakota:

1. *Board of Accountancy.* The trustees of the State University shall appoint a board of three members, which board shall be known as a board of accountancy. The term of office of the members of this board shall be five years. Vacancies in this board shall be filled in the same manner as original appointments are made. Members of this board shall receive for their services actual expenses incurred in the discharge of their duties and an amount sufficient to defray clerk hire, and no more. Of the members of this board, one shall be an educator, one an attorney, and one a person skilled in the practice of accounting.

2. *Powers and Duties of the Board.* The board of accountancy shall conduct examinations and shall exercise such powers and perform such duties as may be prescribed by the trustees of the State University.

3. *Certified Public Accountant.* Any person in order to assume the title of certified accountant or the abbreviation C. P. A. or any other words or letters or abbreviations tending to indicate that the person, firm, or corporation so using the same is a certified public accountant must receive a certificate as a certified public accountant. Certificates shall be granted to those persons with the necessary general qualifications who shall pass the required examinations or for whom such examinations shall be waived.

4. *Qualifications.* Any person of good moral character twenty-one years of age or over, residing in North Dakota or having a place for the regular transaction of business in this state, shall be deemed qualified to become a candidate for the title of certified public accountant.

5. *Examination.* Examinations shall be held at such place and at such time, but at least once a year, as the trustees of the University may designate. Public notice of an examination shall be given at least thirty days before the date of each examination, in such manner as the trustees of the State University may determine. The examination shall cover the theory of accounts, practical accounting, crediting (*sic*), political economy, commercial law, and such other subjects as the trustees of the State University may designate. An oral examination for general fitness may be also required.

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6. *Waiver of Examination.* The trustees of the State University may waive examination of any person possessing the general qualifications, who has practised in North Dakota for more than one year as a public accountant on his own account before the passage of this act, and who shall apply for a certificate of a certified public accountant within a year thereafter.

7. *Certificate.* The trustees of the State University shall have the power to issue the certificate of certified public accountant, which certificate shall remain good and valid during the good behavior of the holder. The trustees of the State University may revoke a certificate for sufficient cause and after written notice to the holder thereof and after a full hearing.

8. The trustees of the University shall fix the amount of the fees to be paid by the applicants for the title of certified public accountant. Such fees shall be used by the trustees of the University to pay the necessary expense incurred in offering the examinations.

9. *Penalties.* Any certified public accountant who shall falsify a report, statement, investigation or audit, or who shall in any other manner be guilty of a misrepresentation as a certified public accountant, shall be guilty of a misdemeanor and shall be punished accordingly.

Approved March 14, 1913.

Wisconsin C. P. A. Law

Following is the text of the certified public accountant law passed by the legislature and approved by the Governor of Wisconsin:

AN ACT to create sections 1636—202 to 1636—211, inclusive, of the statutes, relating to certified public accountants, and appropriating certain revenues and providing penalties.

The people of the state of Wisconsin, represented in Senate and Assembly, do enact as follows:

Section 1. There are added to the statutes ten new sections to read: Section 1636—202. 1. The governor shall, within thirty days after the passage of this act, appoint three suitable persons, residents of the state of Wisconsin, who are hereby constituted a board by the name and style of "The Wisconsin State Board of Accountancy." The members of said board, with the exception of the members first to be appointed, shall be the holders of certificates issued under the provisions of sections 1636—202 to 1636—211, inclusive, shall hold office for a term of three years and until their successors are appointed and qualified.

2. Of the members of the board first to be appointed, one shall be a professor of economics, finance, accountancy, or business administration and commercial law in a school of higher learning, and two shall be skilled

public accountants who shall, for not less than three consecutive years, have been actually engaged in practice as public accountants. Such members shall hold office one for a term of one year, one for a term of two years, and one for a term of three years. The term of office of each shall be designated by the governor in his appointment. Any vacancy in the board shall be filled by the governor for the unexpired term.

3. The persons so appointed shall meet and organize within thirty days after their appointment and shall reorganize each year thereafter. A majority of said board shall constitute a quorum. They shall elect one of their number as president, and another as secretary, and said officers shall hold their respective offices for the term of one year and until their successors are elected and qualified. The affirmative vote of two members of said board shall be considered as the action of said board, except in actions relative to the revocation of any certificate as provided for in subsection 1 of section 1636—206. In all such cases three affirmative votes shall be considered the action of said board.

4. The governor may remove for cause any or all members of said board, upon a hearing of which reasonable notice shall have been given.

5. In addition to the other duties provided by section 1636—202 to 1636—211, inclusive, it shall be the general duty of this board to foster the standard of education pertaining to the science and art of accountancy, not only in its relationship to the interests of individual and organized business enterprises, but in its relationship to the welfare of government, both general and local. This board shall endeavor, both within and without the profession of accountancy, to bring about a better understanding of the relationship of the science of accounting to the problems of public welfare.

Section 1636—203. 1. No certificate as a certified public accountant shall be granted to any person other than a citizen of the United States, or person who has in good faith declared his intention of becoming such citizen, who is over the age of twenty-three years and of good moral character and (except under the provisions of section 1636—204) who shall have successfully passed an examination in commercial accounting, governmental accounting, auditing, commercial law as affecting accountancy and in such other subjects as the board may deem necessary.

2. Examinations shall be held by the board at least once in each year at such times and places as may be determined by them. The time and place of holding examinations shall be advertised for not less than three consecutive days, not less than thirty days prior to the date of such examination, in at least one daily newspaper printed and published in the city of Milwaukee and in at least one daily newspaper printed and published in the city of Madison. Each applicant shall also be notified by mail, by the secretary of the board, at the address mentioned in the application, when and where such examination will be held. Such notice shall be mailed not less than thirty days prior to the date of the next examination.

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3. All certificates issued under the provisions of section 1636—202 to 1636—211, inclusive, shall be signed by at least two members of the board. The board shall record its proceedings, list all certificates issued and revoked and shall maintain such other records as may be necessary or desirable, and all records shall be open to the inspection of the public at the office of the secretary of the board. The members of the board shall have the power of administering oaths as may be necessary to carry out the provisions of section 1636—202 to 1636—211, inclusive.

4. The board may make all needful rules and regulations regarding the conduct of the examinations or their character or scope, the method and time of filing applications for examination and their form and contents, and all other rules and regulations necessary to carry into effect the purposes of section 1636—202 to 1636—211, inclusive.

Section 1636—204. The state board of accountancy may in its discretion waive the examination of, and issue a certificate to, any person possessing the qualifications mentioned in subsection 1 of section 1636—203 who

(a) is the holder of a certificate to practise as a certified public accountant issued under the laws of any other state which extends similar privileges to certified public accountants of this state, provided, that the requirements of the law of such state are, in the opinion of the board, equivalent to the requirements of the law of this state.

(b) is the holder of a certificate or license to practise as a public accountant issued by any foreign government; provided, that the requirements of the law of such foreign government are, in the opinion of the board, equivalent to the requirements of the law of this state.

(c) shall have had more than three years' experience as a public accountant and who shall have practised as a public accountant in this state for not less than one year prior to the passage of sections 1636—202 to 1636—211, inclusive, and who shall apply in writing to the board for such certificate within six months after the appointment of the first board. Each member of the first board shall receive a certificate permitting him to practise as a certified public accountant by virtue of his appointment as such a member.

Section 1636—205. Any person who has received from the Wisconsin State Board of Accountancy a certificate of his qualifications to practise as a public accountant shall be known and styled as a "certified public accountant," and no other person and no partnership, all the members of which have not received such a certificate, and no corporation, shall assume such title or the title "certified accountant" or "chartered accountant" or "chartered public accountant" or the abbreviation "C.P.A." or any words, letters, or abbreviations tending to indicate that the person, firm, or corporation so using the same is a certified public accountant.

1636—206. 1. The board shall revoke any certificate issued under section 1636—202 to 1636—211, inclusive, for unprofessional conduct or

other sufficient cause; provided, that written notice of the cause of such contemplated action and the date and place of the hearing thereon by the board shall have been mailed to the holder of such certificate at his last known address at least twenty days before such hearing. At the said hearing the attorney general of this state or one of his assistants, designated by him, shall sit with said board with all the powers of a member thereof.

2. All suits and proceedings arising out of the provisions of section 1636—202 to 1636—211, inclusive, in which this board or any of its members or agents shall be parties shall be conducted under the direction and supervision of the attorney-general. All expense incurred by or for the department of the attorney-general in performing his duties under said sections shall be paid in the same manner as other expenses of his department and shall be charged against the appropriation for the department of the attorney-general.

Section 1636—207. 1. Any person making an initial application for examination or certificate shall accompany such application with a United States money order or a certified cheque payable to the treasurer of the state of Wisconsin in the sum of twenty-five dollars. Should such application be rejected by the state board of accountancy such cheque or money order shall be returned to the applicant, but immediately upon approval of the application such cheque or money order shall be deposited in the treasury of the state in the manner hereinafter provided and shall be added to the general fund. Such money order or certified cheque shall be deposited with the secretary of state together with a voucher in duplicate, which shall be approved by the secretary of this board and which shall state the name and address of the applicant together with such other information as may be deemed advisable by the board or the secretary of state. The secretary of state shall audit such voucher and shall transmit the money order or certified cheque together with the duplicate voucher to the state treasurer.

2. All money so deposited by the board of accountancy shall, by the secretary of state, be credited to an appropriation account for the state board of accountancy, and all money deposited by this board is hereby appropriated for the purposes of carrying out the provisions of section 1636—202 to 1636—211, inclusive.

3. Every applicant who shall be unsuccessful in the initial examination shall have the privilege of one re-examination without payment of an additional fee, if application for such re-examination be made within two years from the date of the first examination.

Section 1636—208. Each member of the board shall be paid an amount not exceeding ten dollars per day for the time actually expended in performing the duties imposed by section 1636—202 to 1636—211, inclusive, and in addition thereto shall receive all actual and necessary expenses incurred in the performance of such duties. The board shall have power to incur liabilities for all necessary materials, supplies, and expense necessary to perform the duties and carry out the purposes

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of said sections. Payment for services and expenses of members of the board and all other expenditures, as provided for by this section shall be certified to the secretary of state, in the manner provided by chapter 523 of the laws of 1909, and being audited by the secretary of state, shall be paid from the general fund of the state treasury. The secretary of state shall charge such expenditures against the appropriation account for the state board of accountancy, provided in subsection 2 of section 1636—207.

Section 1636—209. 1. If any person represents himself to the public as having received a certificate as provided in section 1636—202 to 1636—211, inclusive, or shall assume to practise as a certified public accountant, a certified accountant, a chartered public accountant, a chartered accountant, or use the abbreviation C.P.A. or any other words, letters, or abbreviations to indicate that the person using the same is a certified public accountant, within the meaning of said section, without having received a certificate to practise as a certified public accountant as herein provided, or, having been deprived of such certificate by revocation as hereinbefore provided, shall continue to practise or represent himself as a certified public accountant, he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by a fine of not less than fifty dollars nor more than two hundred dollars, or by imprisonment in the county jail for a period of not less than one month nor more than six months, or by both such fine and imprisonment in the discretion of the court for each day during which he shall have practised or violated any of the provisions of said sections.

2. Subsection 1 of section 1636—209 shall also apply to all partnerships, all the members of which have not received such certificates to practise as certified public accountants, and the penalties provided shall apply to all members of such partnership. Subsection 1 of section 1636—209 shall likewise apply to all corporations which shall assume such title or other words, letters, or abbreviations, and the penalties provided therein shall apply to each officer and director of such corporation.

3. Nothing in section 1636—202 to 1636—211, inclusive, shall be construed to exclude any person from practising as a public or expert accountant in this state, but said sections shall apply to such persons, partnerships or corporations representing themselves or practising as set forth in subsection 1 of section 1636—209.

Section 1636—210. If any person practising in the state of Wisconsin as a certified public accountant under section 1636—202 to 1636—211, inclusive, or if any person who is in the practice of public accountancy as a certified public accountant or otherwise, shall be found guilty of gross negligence or carelessness or shall wilfully falsify any report or statement bearing on any examination, investigation, or audit made by him or under his direction, he shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than one hundred dollars, nor more than one thousand dollars, or by imprisonment in the county or city jail for a term of not less than three months

The Ohio State Board of Accountancy

nor more than one year, or by both such fine and imprisonment for each time he may be convicted of such a misdemeanor.

Section 1636—211. It shall be the duty of the respective district attorneys to prosecute all violations of the provisions of section 1636—202 to 1636—211, inclusive.

Section 2. This act shall take effect and be in force from and after its passage and publication.

Approved May 26, 1913.

The Kentucky Society of Public Accountants

At the annual meeting of the Kentucky Society of Public Accountants the following officers were elected. President, Thomas E. Turner; vice president, James S. Escott; secretary, Charles G. Harris; treasurer, Overton S. Meldrum; board of trustees, Enos Spencer, L. Comingor and A. H. Ummethun.

The question of C. P. A. legislation was discussed.

British Society of Incorporated Accountants and Auditors

The council of the British Society of Incorporated Accountants and Auditors has elected Charles Hewetson Nelson, Liverpool, and Arthur Edwin Woodington, London, president and vice president, respectively, for the ensuing year.

The council has issued the twenty-eighth annual report. During 1912, 120 new members were added, making a total of 2,521 names. The number of candidates who sat for examination was 475, of whom 325 passed. The income of the society for 1912 was £6,252, and at the close of the year there was a surplus of £9,001, exclusive of £2,485 held for benevolent purposes.

The Ohio State Board of Accountancy

The Governor of Ohio has reappointed to the Ohio State Board of Accountancy, Carl H. Nau of Cleveland and J. J. McKnight of Columbus. The chairman of the board is E. S. Thomas of Cincinnati.

Dominion Association of Chartered Accountants

The eleventh annual meeting of the Dominion Association of Chartered Accountants will be held at the Royal Alexandra Hotel, Winnipeg, Manitoba, Canada, September 2, 3 and 4, 1913. The following programme has been arranged:

TUESDAY, SEPTEMBER 2ND

- 9.00 a.m. Meeting of council.
Registration of members.
- 10.00 a.m. Official reception of members.
- 11.00 a.m. Opening session.
President's address.
Appointment of committees.
Appointment of auditors.
- 1.00 p.m. Complimentary luncheon at the Royal Alexandra Hotel, tendered by the Institute of Chartered Accountants of Manitoba.
- 2.30 p.m. Consideration of report of committee on Uniformity of Standards amongst Provincial Societies.
- 4.30 p.m. Address by Mr. Vere Brown, Western Superintendent Canadian Bank of Commerce, on "The Banker and the Accountant."

WEDNESDAY, SEPTEMBER 3RD

- 9.30 a.m. Presentation of paper on "Municipal Accounting in the Prairie Provinces," by Mr. O. J. Godfrey, of the Saskatchewan Institute.
- 12.30 p.m. Adjournment for luncheon.
- 2:30 p.m. Consideration of reports of committees.
"Canadian Chartered Accountant."
Financial report.
Auditors' report.
- 4.30 p.m. Address by Judge Robson, Public Utilities Commissioner of Manitoba, on "The Accounting of Franchise Companies to the Public Utility Commissions."
- 7.30 p.m. Annual dinner of association at Royal Alexandra Hotel.

THURSDAY, SEPTEMBER 4TH

- 9.30 a.m. Presentation of paper on the "Timber Industries of British Columbia," by Mr. W. E. Hodges, of the British Columbia Institute.
- 12.30 p.m. Adjournment for luncheon.
- 2.30 p.m. Receiving reports of constituent societies.
Report of registration committee.
Place of meeting 1914.
General business.

News of State Societies

AFTER ADJOURNMENT

Meeting of council.

Election of officers.

8.00 p.m. Smoker by the Manitoba Institute in the Royal Alexandra Hotel.

Any inquiries regarding the annual meeting should be addressed to the secretary of the committee on arrangements, A. E. Phillips, C.A., 1201 Union Trust Building, Winnipeg. Applications for hotel accommodations should be sent to T. Harry Webb, C.A., 610 McArthur Building, Winnipeg.

Associated Accountants of New Orleans

The twenty-first anniversary of the formation of the Associated Accountants of New Orleans was celebrated on May 17 by a banquet at the Cosmopolitan Hotel, New Orleans. Several speeches were made and the efforts of the association were commended.

From the report of R. D. T. Sherwood (chairman of the finance committee) it was learned that the association has 111 members. The objects are to associate those engaged or interested in the science and practice of accounts, whether as expert accountants, bookkeepers, auditors, business managers, teachers, bank cashiers or secretaries of corporations, and to aid and encourage the attainment of professional excellence in all such; to consider and discuss by way of essays, lectures, etc., topics of general interest to the accounting world, and to advance the intellectual, financial and general interests of its members.

Louisiana State Board of Accountants

The Louisiana State Board of Accountants held examinations on May 23d and 24th. The following candidates passed the examination and received certificates: A. L. Tillotson of Shreveport, H. M. Holliday and Fred J. Eldridge of New Orleans.

The Louisiana board has decided to publish questions and answers of this examination and the previous one. Copies can be had by application to any member of the board. A nominal charge of \$1.00 will be made.

St. Louis Charter, Missouri Society

At the annual meeting of the St. Louis chapter of the Missouri Society of Certified Public Accountants held May 27, the following officers were elected:

Arthur M. Trader, president; Leslie N. Simson, first vice president; S. H. Rodway, second vice president; John A. Will, secretary; and Clarence R. Laws, treasurer.

Correspondence

The Duty of an Auditor

Editor, The Journal of Accountancy:

Sir: MESSRS. EWING's letter* reveals a situation which in my humble judgment is of very great importance.

In their explanation of the way in which their client handled the merchandise account it would appear that the account was debited monthly with the totals paid as per the two columns in the cash book. Presumably also only the net amount appeared in this total, discount account being ignored entirely and this very valuable bit of information not shown in the ledger.

Now what I would respectfully ask MESSRS. EWING is: What value do they consider attaches to an audit that does not analyze most carefully the most vital part of their client's business?

If MESSRS. EWING & Co. were engaged in the legal profession would they allow their clients to dictate to them how to prosecute or defend actions placed in their hands? I venture to assert that they would not. Then why allow their client's secretary to dictate what items should be audited?

When a firm of accountants is called in to make an audit it is understood by the average business man that everything of value is verified. The perfunctory checking of postings, while necessary to prove the clerical accuracy of the bookkeeper's work, is secondary to the main purpose of the audit. The fact that the president of the wholesale grocery firm whose books were audited by MESSRS. EWING was surprised when he was told that the merchandise account had been passed over is proof that he at any rate labored under the impression that an audit covered everything of material value in the accounting department of his business house.

It is a wise and necessary precaution in such circumstances to word the remarks contained in the report so that legally no blame would attach to the auditors if a discrepancy were disclosed later in an account which they had been requested not to check, but it would be a much wiser policy and do more to enhance the value of an audit if accountants decided for themselves how an audit should be conducted. When we are unanimous on this point it may be that we shall convince the public that there is some merit in accounting after all, and, instead of being ignored by various public commissions we might be honored with an occasional request for assistance on matters appertaining to accounting.

Yours sincerely,

L. A. ROBERTS.

Tacoma, Wash., May 21st, 1913.

* See THE JOURNAL OF ACCOUNTANCY, May, 1913.

Correspondence

Sales Agency Accounts

Editor, The Journal of Accountancy:

Sir: With the view of creating a market for articles of native workmanship, the government of the Philippine Islands has recently appropriated a certain sum for the establishment of a "sales agency."

The sales agency will operate chiefly as a trading concern and as a factor, although there are certain articles which it will undertake to manufacture for sale. The business will be managed by a "sales agent" who will receive as compensation for his services a certain percentage of the gross trading and factorage sales, it being agreed that in case raw materials are received from a consignor to be processed and returned to him the transaction shall be considered as a factorage sale.

Under the provisions of existing law the sales agent is required to submit a full and complete accounting to the insular auditor, covering all trading, manufacturing, and consignment transactions, and to maintain perpetual inventories of sales stock, supplies, and consignors' merchandise. The situation thus presented is one which appears to call for the introduction of certain accounts not usually found in commercial practice. I therefore take the liberty of submitting herewith for discussion and criticism a general outline of the system which I have formulated for the use of the sales agency.

In this connection it should be stated that all manufacturing labor is performed by the workmen at their homes, payment therefor being made at piece rates.

Yours truly,

C. H. FRENCH,

Assistant Auditor for the Philippine Islands.

Manila, May 5, 1913.

SALES AGENCY BOOKS AND RECORDS

General and personal ledgers.
General journal.
Cash books (for cashier and disbursing officers).
Card inventories.
Vouchers, invoices, and accounts current.
Cost sheets.

SALES AGENCY ACCOUNTS

GENERAL LEDGER ACCOUNTS

Land
Buildings
Reserve for maintenance and depreciation of buildings
Equipment
Reserve for maintenance and depreciation of equipment

SUBSIDIARY RECORDS

Card inventory

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Supplies	Card inventory
Display samples	Card inventory
Sales stock	Card inventory
Accounts receivable	Personal ledger
Cash (treasury)	
Cash (C. & D. O.)	C. & D. O.'s cash book
Prepayments	
Consignors' proprietary account	
Consignors' merchandise	Card inventory
Consignors' accounts current	Personal ledger
Accounts payable	Personal ledger
Deferred income	
Principal account	
Working surplus	
Sales income	
Cost of goods sold	
Salaries and wages	
Sales agent's commission	
Traveling expense	
Freight and hauling	
Advertising	
Office expense	
Maintenance and depreciation of buildings	
Maintenance and depreciation of equipment	
Incidental expense	
Prior year income	
Loss on bad accounts	
Prior year expense	
Profit and loss	
Factorage sales	
Consignors' proceeds	
Factorage account	
Materials used in manufacture	
Manufacturing labor	
Production account	
Manufacturing account	

EXHIBIT "A"

SALES AGENCY

BALANCE SHEET AS OF JUNE 30, 1913

<i>Assets</i>		<i>Liabilities and Net Worth</i>	
<i>Fixed Assets:</i>		<i>Current Liabilities:</i>	
Real estate:		Consignors' proprietary account.....	\$ 0,000
Land	\$00,000	Less:	
Buildings	\$00,000	Consignors' merchandise on hand..	0,000 \$ 0,000
Less:			
Reserve for maint. and	000	Consignors' accounts current	0,000
dep. of bldgs.	000	Accounts payable	0,000 \$ 0,000
Equipment	00,000	<i>Deferred Income</i>	000
Less:			
Reserve for maint. and dep.	0,000	Total liabilities	0,000
of equipment	0,000		
<i>Current and Working Assets:</i>		<i>Net Worth:</i>	
Supplies	0,000	Principal account (represented by	
Goods in process (see exhibit	0,000	fixed assets):	
"C")	000	Balance June 30, 1912	00,000
Display samples	000	Acquisitions—year ended June 30,	0,000
Sales stock	0,000	1913	00,000
Accounts receivable	0,000		
Cash:		<i>Working surplus:</i>	
Insular treasury	0,000	Balance June 30, 1912	0,000
Cashier	000	Net profit—year ended June 30,	0,000
Disbursing officers	0,000	1913 (see exhibit "B")	0,000
			00,000
<i>Prepayments</i>	000	Less:	
	000	Fixed assets acquired during the	
	00,000	year ended June 30, 1913	0,000
	00,000		00,000
			00,000

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EXHIBIT "B"

SALES AGENCY

PROFIT AND LOSS STATEMENT, YEAR ENDED JUNE 30, 1913

Sales income	\$	_____
Cost of goods sold	\$	_____
Gross profit from sales (—% of cost of goods sold; —% of sales income)	\$	_____
Add:		
Gross factorage profit (see exhibit B-1)	\$	_____
Gross profit from operations	\$	_____
Deduct:		
Selling and general expense:		
Salaries and wages	\$	_____
Sales agent's commission	\$	_____
Traveling expense	\$	_____
Freight and hauling	\$	_____
Advertising	\$	_____
Office expense	\$	_____
Mtce. and dep. of buildings	\$	_____
Mtce. and dep. of equipment	\$	_____
Incidental expense	\$	_____
Net profit from operations	\$	_____
Deduct:		
Loss on bad accounts	\$	_____
Prior year expense	\$	_____
	\$	_____
Less:		
Prior year income	\$	_____
Net profit (see exhibit "A")	\$	_____

EXHIBIT "B-1"

SALES AGENCY

FACTORAGE STATEMENT, YEAR ENDED JUNE 30, 1913.

Factorage sales	\$	_____
Deduct:		
Consignors' proceeds	\$	_____
Gross factorage profit (see exhibit "B")		
(—% of factorage sales)	\$	_____

Correspondence

EXHIBIT "C" SALES AGENCY

MANUFACTURING STATEMENT, YEAR ENDED JUNE 30, 1913

Materials used in manufacture	\$ _____
Manufacturing labor	\$ _____
Total charges to manufacturing during the year...	\$ _____
Add:	
Cost of goods in process June 30, 1912	\$ _____
Total cost of goods finished and in process	\$ _____
Deduct:	
Production account (representing cost value of finished product delivered to stock during the year)	\$ _____
Cost of goods in process June 30, 1913 (see exhibit "A")	\$ _____

Interest on Capital Invested—A Cost Factor ?

Editor, The Journal of Accountancy:

Sir: If I invest \$100,000.00 in 6 per cent mortgages, my profits are usually considered as \$6,000.00 a year, neglecting any nominal expenses incident to the placing of the money, taxes, etc. Here the money is working for me, and the only thing I have to show for the \$100,000.00 is a promissory note with collateral security.

If I invest \$100,000.00 in actual land, buildings and machinery, etc., and at the end of the year's business find I have cleared \$6,000.00 after deducting the usual expense items, what is the difference? Why should the \$100,000.00 have to earn more than the 6 per cent?

I am told that it is the cost of using the capital; but, then, what is the cost of using the capital in the first investment? The first investment earns 6 per cent over and above its costs—so does the second.

The point to be grasped is that the money can earn only one income at a time; if it earns the 6 per cent as dividends in a factory, it should not be expected to earn another 6 per cent as stock, mortgage, or any other form of investment, for in that case I should think that it was earning 12 per cent.

Again, suppose I am compelled to borrow all my capital and have to pay 6 per cent interest on it. This interest will naturally be a cost of the undertaking, but will it be fair to charge the business with an additional 6 per cent?

Yours very truly,

WILLIAM R. REID:

Montclair, N. J., June 14, 1913.

Book Department

CAPITALIZATION. *A Book on Corporation Finance.* By W. H. LYON.
Boston: Houghton, Mifflin Company. 1912. pp. xi, 296. \$2.00.

In this work the author attacks the subject of corporation finance in an unconventional manner. Beginning with what he terms the instruments of corporation finance, he describes the various forms of securities in reference to their bearing upon the apportionment of the three elements, risk, income, and control. This is followed by an extended discussion of trading on the equity, and a chapter on stock watering. Less important are the following chapters on financing an expansion, amortization, form, and the market and price. The concluding chapter, unnecessarily extended by the inclusion of lengthy excerpts from state laws, treats of capitalization and the state.

Perhaps the most interesting, and certainly the most debatable part of the book is the chapter on watered stock, a discussion which somewhat curiously fails to define just what is meant by that much misused term. The author attempts to show that stock watering is necessary and indeed beneficial. His argument in briefest form is that by stock watering alone can a satisfactory division of risk and control be secured, and that it is the only practicable means by which a new corporation of a somewhat speculative nature can be floated. Recognizing certain evils or abuses of stock watering, he claims that these can be avoided without losing the real usefulness of stock watering, and this chiefly by removing the dollar mark from the certificates of stock.

It is easily conceivable that various schemes of control or regulation, accompanied with full publicity and an education of the public in matters of accounting and finance, may palliate the faults of stock watering. It is perhaps easily demonstrable that stock watering is not, in itself, a real evil, but becomes so only when accompanied with deception on one side and ignorance on the other. But it is hard to see how one can argue that stock watering can be made innocuous and at the same time be beneficial to the company.

In this discussion the author does not fairly face the fact that if stock watering enables the seller to get a higher price, it probably means that the purchaser is getting less than he pays for. Stock watering does not in itself affect the nature of the enterprise, makes it neither more nor less speculative, neither increases nor decreases the profits, makes the income neither more nor less sure. What one party gains, therefore, seems to be at the expense of the other. The argument common to many writers on the subject, that stock watering is necessary in order to place speculative stock, seems to take too limited a view of present day financial fashions, without correction by reference to other day practices, or to the custom today in the marts of other lands. And even without the sanction of historical and comparative study one might well

Book Department

claim, as indeed is claimed by T. F. GREEN, that a franker method of finance, even though it were to involve an utter innovation, would be profitable. The first introduction of a fixed price in the retail trade occurred within the memory of those still living. But, despite the prophecy that such an unheard of innovation in business methods must prove disastrous, the new system has proven as profitable as popular. There is probably no more real advantage in encouraging the investor to believe that watered stock, as such, is a bargain, than there was in persuading the purchaser that she was beating down the salesman in a retail store. Both systems of doing business suffer from indirection—in all probability both are equally unnecessary and unprofitable.

HENRY RAND HATFIELD.

DEPRECIATION, RESERVES, AND RESERVE FUNDS. By L. R.

DICKSSE, F.C.A. 3rd Edition, 1912. 70 pages.

The third edition of this work (Vol. XXVI of the *Accountants' Library*) differs little from the two preceding editions. The chapter on local authorities and depreciation, omitted from the second edition, is reinstated in this volume. Mr. DICKSSE brings out the fact in this chapter that an annual sinking fund investment set aside to redeem a loan "never corresponds with the true depreciation charge" for the reason that the sinking fund charge is fixed by the local government board and does not correspond with the life of the assets acquired with the proceeds of the loan. Furthermore, several assets of various terms of life may be purchased with the proceeds of the loan. The author brings out an interesting fact connected with the local governments in England in that the proceeds of any commercial enterprise in which they engage must first be given over to the demands of the current working expenses and then to provide for a sinking fund for the repayment of the loan. After these provisions have been made from the gross earnings, any remaining surplus is to be applied to a reserve fund which cannot *exceed* 10% of the capital expenditure to date. If any surplus still remains it is applied to a relief in rates.

The character of the statements made in this book is necessarily general. The reader must apply the principles to fit the conditions in any particular case in question. Mr. DICKSSE illustrates three methods of writing off depreciation, (1) fixed proportion; (2) fixed percentage, and (3) annuity.

Chapters are given over to a discussion in detail of the depreciation of freeholds and leaseholds, plant and machinery, loose tools, etc., patents, copyrights, and goodwill. Mr. DICKSSE claims that "it is impossible to create a reserve fund save only of divisible profits"; whereas a reserve may be provided even during periods when a loss has been sustained. "The continued existence of a reserve fund is dependent upon the continued existence in the undertaking of the profits out of which that fund was originally created. If those profits have been absorbed in subsequent losses, the reserve fund automatically ceases to

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exist. It will thus be seen that the popular view, that a reserve fund is only 'real' when represented by specific investments outside the business of a corresponding value, is entirely misconceived."

F. H. ELWELL.

Books Received for Review

A First Year in Bookkeeping and Accounting. By G. A. MacFarland and Irving D. Rossheim. 1913. 227 pages. 8vo, cloth. Price, \$1.50. D. Appleton & Co.

Economics of Business. By Morris A. Brisco. 1913. 390 pages. 8vo, cloth. Price, \$1.50. Macmillan Co.

Standard Legal Forms. By Edward T. Lee. 1913. 242 pages. 8vo, cloth. Price, \$2. American School of Correspondence.

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No. 2

The Fallacy of Including Interest and Rent as Part of Manufacturing Cost

By A. LOWES DICKINSON, C.P.A.

(In continuation of the article appearing in the December, 1911, issue of THE JOURNAL OF ACCOUNTANCY, the following further note may be interesting to readers of THE JOURNAL.)*

The fundamental objection to treating interest and rent (which, except in so far as it includes compensation for services rendered, is only a form of interest) as an integral part of the cost of manufacture is that all interest is in fact profit. The practical effects of this objection are as follows:

First, that from an accounting standpoint costs are used mainly to determine the valuation of inventories of stocks on hand and that to include interest (that is, profit) in such costs leads to inflation of these values and consequent anticipation of profits not yet earned by the sale of products.

Secondly, that it is impracticable to determine a rate of interest on any but an arbitrary basis and that consequently costs arrived at on such a basis have no real meaning and may easily be misleading. For example—owners of a business are earning profits equivalent to 12 per cent on the capital employed and decide to make certain extensions and improvements which will result in savings equivalent to 10 per cent on their cost; they are in a position to raise the money by an issue of bonds on a $5\frac{1}{2}$ per cent basis or of preferred stock on a 7 per cent basis. What

* The original article to which MR. DICKINSON refers appeared in THE JOURNAL of December, 1911, which is now out of print. Accordingly in compliance with many requests we reprint the original article at the close of MR. DICKINSON'S present contribution.—*Editor*, THE JOURNAL OF ACCOUNTANCY.

rate of interest should be added as a charge to cost accounts if such a principle is adopted?

Thirdly, that the common methods of including interest in costs calculate such interest only on buildings, plant and machinery and ignore the investment of working capital, and frequently also the element of time during which the capital facilities are required for each manufacturing operation.

Fourthly, that to include interest in costs of every operation results in concealing from those in charge of the business the exact effect of two of the important factors involved in profits—namely, the amount of capital employed and the time for which it is employed—and consequently the actual return on the investment necessary to produce it which is yielded by any particular article.

Whilst perhaps the point is not material in a discussion of the theory involved, it may be pointed out that there is a strong objection on the ground of policy to the inclusion of interest as a part of cost, particularly in the case of public service corporations. In fact this objection is so pronounced that some bankers stipulate in agreements with borrowers that inventories must be taken upon a basis that excludes interest on capital invested.

If any interest rate is to be assumed it can only be a rate which represents a fair compensation for the use of the capital. If the selling price or rate yields a profit over and above the cost of material and labor, a fair return on the capital employed and fair compensation for management, it would seem that to the extent of this profit the price charged is excessive, at least where the manufacture is not conducted under some patent or other special process for which a further compensation may fairly be exacted. This is not a conclusion that a manufacturing or public service corporation whose prices or rates are attacked can afford to admit, more especially as those attacking the rates are not bound by the interest rate adopted, as the corporation might be.

While, however, so far as the general accounts of a business are concerned it must be held that interest is not a proper element in the cost of product, there is an undoubted demand, and even necessity, for some supplementary statistical accounting which will give effect to the principal elements involved in

Interest and Rent as Part of Manufacturing Cost

the earning of profits. The factors involved in profits are the following:

- (1) The labor, material and expense cost of a unit of each class of article.
- (2) Facilities used in manufacture, such as land, buildings, machinery, tools, stocks on hand and other working capital, all segregated between the different classes of articles.
- (3) The time during which such facilities are in use for a unit of each class.
- (4) The selling price of each unit of each class.

If these elements be known, comparisons can be made between different articles produced in the same factory or between the same articles produced in different factories as to the amount of fixed capital employed in different processes and the time for which it is employed; as to the amount of working capital constantly maintained and used; and as to the effect of further expenditures on additions and improvements with a view to cheapening cost of production. Only the first of the above four factors should enter into the general accounting books and form the basis of inventory valuations and so of the actual profits earned; the remaining factors should be dealt with only in subsidiary statistical records. The difference between the sum of all selling prices (4) and of all costs (1) will agree with the gross profit in the accounting books; and a comparison of this figure with the total capital employed, including not only fixed but circulating capital necessary for manufacturing purposes, will give the rate of return yielded by all classes of articles. The cause of any variation in this rate of return, as compared with a previous period, or of the varying rates of return on different articles in the same factory, or of the same articles in different factories, will be obtained from the detail figures. Such variations may be due either to (1) higher or lower cost of labor, material and expense; (2) greater or smaller amount of facilities used; (3) longer or shorter time during which these facilities are used; and (4) lower or higher selling price. If interest at an arbitrary rate is included throughout in labor, material and expense costs it means that the fluctuations in profit due to the first three of these variations are merged into one and cannot without

considerable labor again be segregated. The best measure of factors (2) and (3) would seem to be the value of the facilities used, multiplied by the fraction of the year during which they were used and divided by 100, which product would be equivalent to interest at 1 per cent per annum; the actual margin between selling price and cost of labor, material and expense divided by this product would thus be the actual rate of return yielded by any particular class of articles, the average of such yields corresponding to the yield shown by the principal accounting records.

Unused facilities would under this system appear as a factor in reducing profits either by lack of sufficient business to employ them or by excess facilities in one portion of the plant as compared with another. The product factor corresponding to these unused facilities would form part of the divisor in obtaining the average yield.

Comparative costs of separate operations will be reached by a consideration not only of the actual labor, material and expense cost in different periods or in separate factories, but also by a comparison of these costs with the facilities employed. Thus the estimated savings to be effected in any operation by additional expenditures on construction account should be found reflected in the reduced cost of these operations.

Such a plan as that here suggested gives proper weight to all the factors entering into profits without introducing any arbitrary rate of interest; it will be no more complicated in its working than are cost systems which are in constant use; and its complications will vary with the number of different articles produced for which separate costs are required.

The Fallacy of Including Interest and Rent as Part of Manufacturing Cost

BY A. LOWES DICKINSON, C.P.A.

(THE JOURNAL OF ACCOUNTANCY, DECEMBER, 1911)

Many engineers, and perhaps also a few accountants, advocate the inclusion of interest and rent as part of the cost of manufacture. On the other hand, the majority of accountants contend that this practice is incorrect and misleading, and while admitting

Interest and Rent as Part of Manufacturing Cost

that some of the objects sought to be attained by including such items are legitimate, they would further claim that these same objects can be attained in other and better ways.

In view of the prevalence of what it is believed are erroneous views on this subject it may be well to repeat now the arguments, some theoretical and some practical, against treating interest and rent as part of cost of manufacture, and at the same time to consider alternative methods of attaining the comparative results aimed at.

It must be premised that the object of the investment of money in any undertaking is to realize a profit. The inducement to an individual to invest his capital in an industry rather than in the purchase of stocks or bonds is largely the fact that by so doing he not only can obtain remuneration for his own services but can also obtain a higher return on the capital invested—that is a higher rate of interest, although at the same time he takes increased risks. The old theory of economists has been that there is a certain rate of return on money which eliminates all elements of risk, and that this rate only should be termed interest, all additions thereto being considered as compensation for the risk involved; but no economist has yet been able to say what this minimum rate is and even in the case of what is perhaps the lowest rate known—namely, that yielded by United States Government bonds—it cannot be said that the element of risk is entirely absent. The impossibility therefore of determining this pure rate of interest apart from risk goes to show that there is in effect no such rate whatever, but that all returns upon money invested, whether in bonds or stocks or other business enterprises, are the profits realized on the use of that money.

Those who invest money in business enterprises frequently, and in fact generally, make arrangements by which they join in partnership with others who also wish to invest, giving to these others a share of the resulting profits as remuneration for the capital employed. This share is determined by reference to the risk which the different parties to the enterprise take; some prefer to take security in the shape of a first charge upon the whole property and to compound for their share of the profit by a fixed annual payment, this fixed annual payment being that which

is commercially known as interest; others are willing to take a somewhat greater risk, but do not wish to take the whole of it, and they limit their risk by taking for the capital which they contribute a preferential charge upon the earnings or profits of the business, leaving the whole of the balance available for those who take the ultimate risk. The remuneration of both these classes is known commercially as dividends. There is still another class who do not contribute capital in the ordinary sense of the word, but provide the business with facilities, such as building, machinery, etc., compounding with their partners by agreeing to accept a fixed annual payment in lieu of the share of profits to which their contribution to the capital would entitle them. Such payments as these are generally known as rent or rentals. All, however, whether consisting of so-called rentals, interest or dividends, are merely a division of the profits resulting from the business and in the long run can only be met out of those profits either directly or in certain cases, owing to the nature of the relations between the different parties, by certain of them suffering an actual loss of a proportion of their share of the capital in order to carry out the bargain made with their partners.

The profit or return consists of the difference between the sale price of the product and the cost of producing and selling that product. It is clear, therefore, that interest or rent or any other item in the nature of return upon capital invested cannot possibly form a part of the cost of products, the ascertainment of which is a first essential to the determination of the yield or return which the business gives and out of which the divisions of interest or profits are to be made.

It is quite true that as between the contributors to capital those who take the ultimate risk may advance or commute the share of profits of others, but this is merely a bargain between the different classes of contributors and should not in any way whatever affect the cost of product.

If rent and interest are treated as cost of product then the extraordinary result is produced that the cost of making a certain article (other things being equal) in a business in which the contributing interests are divided between (a) the owner of the factory, (b) the owner of capital taking a small risk and

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(c) the owner of the residue of the capital, will be greater than in an exactly similar case where the residuary owner provides the whole of the capital required. It seems clear that the relations between the partners or contributors should not in any way affect the cost of the product. *

The advocates of the inclusion of interest and rent charges in cost reply to this that, in order to remedy this apparent absurdity, interest on the total capital invested should be charged to cost irrespective of the manner in which it is provided. This, however, at once raises the question of the rate of interest that is to be adopted. Is it to be the rate which should be obtained on capital invested absolutely without risk, or is it to be the rate obtained by investments in stocks or bonds, and if so of what class, inasmuch as the rates on these vary all the way from two per cent to fifteen per cent and even twenty-five per cent and more on mining and other investments? Or is it to be the reasonable rate which the particular business should return on the money invested therein? It has been generally assumed by the advocates of this course that interest at the rate of five per cent or six per cent should be charged into cost; but these rates mean nothing in themselves; they have no bearing whatever upon the particular industry or on the rate which money can get in specified investment outside; they are arbitrary standards which men in commercial community have set up in their own minds. The only rate which could be justified in argument would seem to be that inasmuch as the capitalists have charged into costs and obtained for themselves the rate which they might think they ought to realize on the whole business, the balance of it, which under such procedure would be called profit, does not belong to them at all but to those who purchase goods from them or to the general public or the government. This is an argument which would hardly be admitted by any manufacturer.

Costs are required for varied purposes, and the arguments based on convenience in favor of including interest therein vary accordingly. Without attempting to deal exhaustively with the subject it may be well to touch on two of the more important objects sought by such inclusion:

* It may be well to mention here that rent may include something more than interest, in which case a part thereof may properly be included in cost, and, further, that in the case of office rents, convenience and the relative unimportance of the amounts may sometimes justify their inclusion in the cost of production or selling, usually the latter.

- (1) Where costs are used for inventory purposes to provide for carrying forward interest paid on indebtedness created for materials entering into the cost where the lapse of time is a necessary part of production, *e. g.*, in seasoning lumber.
- (2) To give effect to the variations in amount of capital employed and the term of employment in the production of different articles or the same articles by different methods or factories.

In support of the first it is urged that where there is a substantial lapse of time between the purchase of materials and the date when they become useful or productive, for instance in the case of seasoning lumber, the selling value of the material increases by reason of the lapse of time and that the interest will normally be recovered on the sale of the goods. This argument at first sight seems plausible, but on further consideration it is clear that the payments of interest are not part of the cost but are made by arrangement between the parties entitled to the profit. That is to say, the stockholders who have compounded with the lenders for interest at a fixed rate payable at a fixed time have in effect made an advance out of their share of the profits pending realization. It may be argued that this payment can from the point of view of the stockholders be properly carried forward as an asset, but if so it should be as a deferred charge against profits and not as a part of the cost of the inventory.

In the second case surely the correct way is not to charge into the cost an arbitrary rate of interest which means little or nothing, but to compare the margin between the sale and cost price, or in other words the return upon each product, with the capital invested in order to secure that return. This comparison would be a true one, would show exactly how much the capital invested really earned and would be a good guide as to whether too much or too little capital was invested. Moreover, the adoption of the arbitrary rate defeats its own object, for according as the rate adopted varies from the true rate, if there is such, so the comparisons deduced from the results will be erroneous. If the capital invested in a mercantile business should yield from fifteen per cent to twenty per cent on the investment, then it is clearly erroneous to say that the opera-

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tions resulting from the use of a certain machine in which a certain definite proportion of that capital has been invested should be charged with interest on that capital at five per cent or six per cent or some other rate entirely different from that which it is really expected to yield. As between two different kinds of machines used to produce the same product but having different capital values the conclusion reached by comparing the cost including interest at five per cent will be entirely different from the conclusion reached by including interest at ten per cent, and neither of these rates will be anything more than a guess.

It is difficult to see any advantages resulting from the inclusion of interest in cost sufficient to offset these fundamental objections. As a matter of fact if the question of the rate of interest be waived the difficulties of making a correct interest adjustment would still be considerable.

Some advocates of the inclusion of interest in cost propose only to include interest on the fixed plant employed in manufacture, but obviously such a course may in many cases be absolutely misleading. If of two plants turning out the same product one requires the employment of fixed assets of a value of \$10,000 for thirty days and the other the employment of fixed assets of \$5,000 for sixty days, the interest charge introduced upon this principle will be the same in both cases, whereas the process which takes sixty days to complete will obviously involve a longer investment of working capital. But if an attempt is made to allow for interest both on fixed and working capital the adjustment will inevitably be a very complicated and difficult one to carry out. Where interest on fixed assets alone is considered the calculation of the charge is not free from difficulty. The amount of capital employed and the time for which it was employed may perhaps be easily determined; yet unless continuous production throughout the year is possible the interest charge based thereon will be inadequate and any calculation to be correct must allow for the time during which the plant will normally be unemployed.

It is generally admitted that the value of cost figures diminishes as the proportion thereof accurately allocated (direct cost) diminishes and the amount distributed by arbitrary apportionment (indirect cost) increases. No really satisfactory method of apportionment of indirect cost seems possible; in fact

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it may be said that the greatest problem of cost accounting is to find the least unsatisfactory disposition thereof.

This being so it seems a pity to add to the difficulties by including in indirect costs interest, which, as this article has attempted to show, has no proper place in cost accounting.

Municipal Recognition of the Certified Public Accountant

BY CARL H. NAU, C.P.A.

Under what is known as the "home rule" amendment to the constitution of Ohio, which became effective on the first of the year, the cities of Ohio are given "all powers of local self government."

As a condition precedent to the exercise of such powers, it is necessary that each city elect a charter commission of fifteen men, and submit to a vote of the electorate a charter proposed by such commission.

The writer of this article had the good fortune or the misfortune (it depends on the point of view) to be chosen a member of the charter commission for the city of Cleveland, which was the first commission in the state of Ohio to draft a home rule charter under the amended constitution.

The personnel of the commission was a very representative one. It was composed of lawyers, doctors, bankers, college professors, business and laboring men. The writer was chosen a member of the commission avowedly as a representative of the accounting profession, it being considered that, in the framing of the organic law of the city, an accountant could be of some assistance in framing proper provisions relating to the sections dealing with finance and accounting. While having decided convictions with reference to many other of the progressive provisions which, as finally completed, the charter contains, it, therefore, became his peculiar duty to concern himself with the provisions which specifically relate to accounting matters and to the department of finance.

It early occurred to the writer that, as a central and pivotal point around which other provisions of the charter might be grouped, it was necessary for some one to make a concise and yet specific definition of a correct accounting procedure for a city. Having never seen such a definition, and after trying for several days himself to make one, it occurred to him to enlist the assistance of some of the leading members of the profes-

sion with whom he had personal acquaintance. With this end in view, he wrote to a number of our fellows—including the president of the American Association and members of its committee on legislation.

What primarily was desired was to obtain in the charter a recognition of the C. P. A. degree and a definition of correct accounting principles which under proper interpretation would ultimately compel correct municipal accounting.

Manifestly, it would be impracticable to lay down a detailed accounting procedure in a charter. Were such a thing possible, it would be altogether likely that, in view of the progress which is constantly taking place in the art, any outline for a detailed procedure would have to be changed within a year or two after it had been fixed in a fundamental charter provision.

The difficulty which confronted us is well illustrated by a quotation from one of our correspondents, who said: "It seems to me that you are falling into the same mistake that WICKERSHAM did—that is, you are attempting to define in a short instrument correct accounting principles. This I think is impossible."

The arguments before the ways and means committee of the house of representatives in connection with the new income tax were referred to, and it was stated that it had been urged upon them "to make the law just as simple as possible and to refrain from any attempt to define net profits in a law, but to state in a general way that the tax is upon net income or net profits and that the treasury department will be given authority to formulate regulations."

Among those to whom the writer addressed himself in seeking assistance to draft a central provision incorporating a correct definition of an accounting procedure which might endure for all time, deal only with fundamental principles, and constantly serve as a criterion or "touch stone," to which could forever be referred the sufficiency or insufficiency of any accounting machinery or procedure, was MR. HOMER S. PACE of New York. To him was referred some of the correspondence with the statement that the thing desired was some "language" by means of which the objects sought to be accomplished could be written into the charter. Section 112 hereinafter is *verbatim et literatim* the language of MR. PACE.

To explain how the difficulty above referred to was overcome,

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how finally, for the first time, so far as the writer's knowledge goes, there was fixed in a law a correct definition of an accounting procedure, and how other provisions were written into the charter to enforce a compliance with such definition, is the purpose of this article.

The Cleveland charter provides for only two elective officers—a mayor, who is the sole executive authority, and a council, which is the legislative authority. The elector votes for only two persons, namely, the mayor and the councilman from his district. This is the short ballot in its quintessence. Both are subject to the recall, and there are provisions for the initiative and referendum. The mayor appoints all administrative heads, can remove them at will and is solely responsible for administrative matters.

All administrative officials—other than the mayor—are, therefore, appointive, and all officials excepting the director of each of the six departments and one secretary for each are under civil service regulations in the classified service.

One of the six departments provided for is the department of finance, under which there are the following divisions, each in charge of a division chief, who is an appointee under civil service.

- (a) Division of accounts.
- (b) Division of treasury.
- (c) Division of assessments and licences.
- (d) Division of purchases and supplies.

ACCOUNTING PROCEDURE

Section 112: "Accounting procedures shall be devised and maintained for the city adequate to record in detail all transactions affecting the acquisition, custodianship and disposition of values, including cash receipts and disbursements; and the recorded facts shall be presented periodically to officials and to the public in such summaries and analytical schedules in detailed support thereof as shall be necessary to show the full effect of such transactions for each fiscal year upon the finances of the city and in relation to each department of the city government, including distinct summaries and schedules for each public utility owned or operated."

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DIVISION OF ACCOUNTS

Section 113: "The commissioner of accounts shall be the chief accounting officer of the city. He shall, under the supervision of the director of finance, install and maintain accounting procedures in conformity with section 112 of this charter, and prescribe the methods of keeping accounts by all departments and the form of reports to be rendered to the director of finance. He shall appoint all bookkeepers and other employees charged with keeping books of financial account in all departments; and, whenever practicable, such books and accounts shall be kept in his office. He shall require that daily reports be made to him by each department, showing the receipt of all moneys by such department and the disposition thereof. He shall keep an account of all appropriations made by the council and all expenditures made or contracted to be made under such appropriations."

AUDIT AND EXAMINATION

Section 48: "The council shall cause a continuous audit to be made of the books of account, records and transactions of the administrative departments of the city. Such audit, during each fiscal year, shall be made by one or more certified public accountants who, for three years next preceding, have held a certificate issued by the state board of accountancy of Ohio or by a state maintaining an equal standard of professional requirements, which entitles the holder of such certificate to an Ohio certificate. The duties of the auditor or auditors, so appointed, shall include the certification of all statements required under section 112 of this charter. Such statements shall include a general balance sheet, exhibiting the assets and liabilities of the city, supported by departmental schedules, and schedules for each utility publicly owned or operated; summaries of income and expenditure, supported by detailed schedules; and also comparisons, in proper classification, with the last previous year. The report of such auditor or auditors for each fiscal year shall be printed and a copy thereof furnished to the Ohio state bureau of inspection and supervision of public offices, to the mayor, to each member of the council and to each citizen who may apply therefor;

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and a condensed summary thereof shall be published in the *City Record*."

In considering the foregoing sections, observe, first, the definition of an accounting procedure in section 112—how upon the one hand it is broad and euphonious enough to qualify for a political platform, and upon the other hand, specific enough to force statements strictly upon an income and expenditure basis, and to compel an accounting for property as well as for cash. The words "including cash receipts and disbursements" are not necessary to the definition, but are purposely inserted to enforce the distinction made and to indicate that the usual accounting for receipts and disbursements alone will not comply with this provision.

Note the words "adequate to record in detail" and the words "full effect." Properly interpreted no scheme of accounting can comply with this definition which does not make possible the construction, from the books of account themselves, of a balance sheet raising all assets and all liabilities of the city, of a statement of income and expenditure, and—the municipal corporation analogue of the private corporation profit and loss account—a surplus or deficiency account.

If anyone is disposed to quarrel with the terminology employed in this definition let him read the definition in the New York certified public accountant syllabus, which follows.

Accountancy is a profession, the members of which, by virtue of their general education and professional training, offer to the community their services in all matters having to do with the recording, verification, and presentation of facts involving the acquisition, production, conservation and transfer of values.

Section 113 makes it the duty of the commissioner of accounts to install and maintain such an accounting procedure, and section 48 provides for the enforcement of these provisions, because no self-respecting certified public accountant can perform the duties required of him without getting adequate statements as a basis, thus forcing upon the auditor the full effect of the main provision.

Note, also, the "wide open" provision for the employment of certified public accountants from any state, requiring only that they shall hold certificates from states maintaining stand-

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ards of professional requirements equal to those of Ohio and that they shall have held such certificates for at least three years.

In the opinion of the writer these provisions mark a decided advance not only in obtaining a legal definition of correct accounting principles but also in obtaining legal recognition of the profession of the certified public accountant.

The foregoing provisions are being urged upon the charter commission of the city of Detroit, are being favorably considered by the charter commission of Dayton, Ohio, and are serving as a pattern for similar provisions in the charters of other cities.

Thus the difficulty hereinbefore alluded to, and expressed in the following quotation from a letter in the correspondence the writer had upon this subject, seems to have been overcome: "Referring to your remark concerning the impossibility of attempting a short definition of a correct accounting procedure in a charter, it was this very difficulty that to me seemed to be insuperable, but it was also the very thing that I thought would be most valuable to do, if it could be done. A description of a detailed procedure would not only be impossible, but probably would be one that you would want to change within a year after it was adopted; but to define correct principles to be embalmed and fixed in a charter would not only be most valuable in constantly being appealed to in a criticism of existing methods, but would furnish a precedent for others to follow."

Other sections of the charter of peculiar interest to the profession follow.

SEPARATE ACCOUNTS

Section 128: "The accounts of all public utilities owned and operated by the city and dependent for their revenue upon the sale of their products or services shall be kept separate and distinct from all other accounts of the city, and shall contain proportionate charges for all services performed for such utilities by other departments, as well as proportionate credits for all services rendered."

MAYOR'S ESTIMATE

Section 41: "The fiscal year of the city shall begin on the

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first day of January. On or before the fifteenth day of November in each year the mayor shall prepare an estimate of the expense of conducting the affairs of the city for the following year. This estimate shall be compiled from detailed information obtained from the various departments on uniform blanks prepared by the director of finance, and shall set forth:

"(a) An itemized estimate of the expense of conducting each department.

"(b) Comparisons of such estimates with the corresponding items of expenditure for the last two complete fiscal years and with the expenditures of the current fiscal year, plus an estimate of expenditures necessary to complete the current fiscal year.

"(c) Reasons for proposed increases or decreases in such items of expenditure compared with the current fiscal year.

"(d) A separate schedule for each department showing the things necessary for the department to do during the year and which of any desirable things it ought to do if possible.

"(e) Items of pay roll increases, as either additional pay to present employees or pay for more employees.

"(f) A statement from the director of finance of the total probable income of the city from taxes for the period covered by the mayor's estimate.

"(g) An itemization of all anticipated revenue from sources other than the tax levy.

"(h) The amounts required for interest on the city's debt, and for sinking funds as required by law.

"(i) The total amount of outstanding city debt with a schedule of maturities of bond issues.

"(j) Such other information as may be required by the council.

"The mayor shall submit the estimate thus prepared to the council, and at least one thousand (1,000) copies thereof shall be printed for distribution to citizens who may call for them. Copies of the estimate shall also be furnished to the newspapers of the city, and to the public library and each of its branches."

APPROPRIATION ORDINANCE

Section 42: "Upon receipt of the mayor's estimate the council shall at once prepare an appropriation ordinance, in such man-

ner as may be provided by ordinance or resolution, using the mayor's estimate as a basis. Provision shall be made for public hearings upon the appropriation ordinance before a committee of the council or before the entire council sitting as a committee of the whole. Following the public hearings and before the third reading and final passage, the appropriation ordinance shall be published in the *City Record* with a separate schedule setting forth the items asked for in the mayor's estimate which were refused or changed by the council, and the reasons for such change or refusal. The council shall not pass the appropriation ordinance until fifteen (15) days after its publication nor before the first Monday in January. Upon passage of the appropriation ordinance by the council it shall be published in the manner provided for other ordinances."

TRANSFER OF FUNDS

Section 43: "The council may at any time transfer money appropriated for the use of one department, division, or purpose to any other department, division or purpose; but no such transfer shall be made of revenue or earnings of any non-tax-supported public utility to any other purpose."

CURRENT REVENUE

Section 44: "Any accruing revenue of the city, not appropriated as hereinbefore provided, and any balances at any time remaining after the purposes of the appropriation shall have been satisfied or abandoned may from time to time be appropriated by the council to such uses as will not conflict with any uses for which specifically such revenues accrued."

LIMITATION ON APPROPRIATIONS

Section 45: "No money shall be drawn from the treasury of the city, nor shall any obligation for the expenditure of money be incurred, except pursuant to appropriations made by the council; and whenever an appropriation is so made the clerk shall forthwith give notice to the director of finance. At

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the end of each year all unexpended balances of appropriations shall revert to the respective funds from which the same were appropriated and shall then be subject to future appropriation; but appropriations may be made in furtherance of improvements or other objects or work of the city which will not be completed within the current year."

Section 46: "Moneys appropriated as hereinbefore provided shall not be used for other purposes than those designated in the appropriation ordinance without authority from the council. The mayor and the director of finance shall supervise all departmental expenditures, and shall keep such expenditures within the appropriations."

PAYMENT OF CLAIMS

Section 115: "No warrant for the payment of any claim shall be issued by the commissioner of accounts until such claim shall have been approved by the director of the department for which the indebtedness was incurred; and each director of a department and his surety shall be liable to the city for all loss or damage sustained by the city by reason of the negligent or corrupt approval of any claim against the city in his department. Whenever any claim shall be presented to the commissioner of accounts he shall have power to require evidence that the amount claimed is justly due and that such claim is in conformity with law and ordinance. For that purpose the director of finance may summon before him any officer, agent, or employee of any department, or any other person, and examine him upon oath or affirmation relative thereto, which oath or affirmation he may administer. If the commissioner of accounts shall draw a warrant for any claim contrary to law or ordinance he and his sureties shall be individually liable for the amount thereof."

CONTRACTS CERTIFIED

Section 122: "No contract, agreement, or other obligation, involving the expenditure of money, shall be entered into, nor shall any ordinance, resolution, or order for the expenditure of money be passed by the council, or be authorized by any officer of the city, unless the director of finance first certify to the

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council or to the proper officer, as the case may be, that the money required for such contract, agreement, obligation, or expenditure, is in the treasury, to the credit of the fund from which it is to be drawn, and not appropriated for any other purpose, which certificate shall be filed and immediately recorded. The sum so certified shall not thereafter be considered unappropriated until the city is discharged from the contract, agreement, or obligation."

Section 123: "All moneys actually in the treasury to the credit of the fund from which they are to be drawn, and all moneys applicable to the payment of the obligation or appropriation involved that are anticipated to come into the treasury before the maturity of such contract, agreement or obligation, from taxes or assessments, or from sales of services, products or by-products or from any city undertakings, fees, charges, accounts and bills receivable or other credits in process of collection; and all moneys applicable to the payment of such obligation or appropriation which are to be paid into the treasury prior to the maturity thereof, arising from the sale or lease of lands or other property, and moneys to be derived from lawfully authorized bonds sold and in process of delivery shall, for the purposes of such certificate, be deemed in the treasury to the credit of the appropriate fund and subject to such certification."

Note the radical departure from the usual practice in this section, which makes receivables maturing during the pendency of the contract constructively in the treasury and avoids the absurdity of requiring the actual money on hand before entering into contracts which do not call for all the cash for a long time after the work is begun.

BUREAU OF INFORMATION AND PUBLICITY

Section 76: "There shall be established a bureau of information and publicity under the supervision and control of a commissioner to be appointed by the mayor. The duties of the commissioner shall be to compile an annual report giving a summary of the council proceedings and a summary of the operations of the administrative departments for the previous fiscal year; to have charge of the editing, printing and distribution

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of all municipal records, reports and documents; to collect and compile information and statistics concerning all departments and offices of the city, and other municipalities; to publish weekly the *City Record*, which shall contain the transactions and proceedings of the council, the legal advertising of the city and such other information relating to the affairs of the city as shall be determined by ordinance. The *City Record* shall be published, distributed and sold in such manner and on such terms as the council may determine. No unofficial advertisements shall be published in the *City Record*."

Other provisions might be quoted if space permitted, but the foregoing sections seem to the writer to be of peculiar interest to professional accountants, and will warrant the statement that the proposed charter of the city of Cleveland is, from the standpoint of the accountant, a considerable advance over any city charter hitherto framed.

The charter will, in all probability, be adopted, and it is the hope of the writer of this article that it will be adopted, not only on account of the foregoing provisions but because it contains even more important and far-reaching provisions which are of interest to the general public.

Cotton Mill Accounts*

BY JOEL HUNTER

The purpose of accounts is to record financial history. Aside from the statistical value perhaps the largest measure of usefulness of accounts lies in their freshness. Manifestly it is more interesting to read from the bank account what today's balance is than what it was two months ago. Correct accounting principles rest upon method. Method is the shortest way to a desired result. System combines methods into a general scheme. Therefore we have this prescription for effectiveness.

Today's transactions recorded today	30 per cent
Method	40 per cent
System	30 per cent
<hr/>	
100 per cent of effectiveness	

The best accounting system is that which presents accurate information, which discloses complete information, and that most frequently and soonest after the actual transactions. Thus an annual financial statement completed ninety days after the balance sheet date is more or less interesting, but viewed as we would regard Confederate States money, with thoughtful interest and rather as a semi-modern relic. A system of accounts used by many cotton mills is based upon the pay roll term, using two fortnightly periods as the monthly unit. This plan meets the generally recognized thirty days, or monthly period, as the settling or casting up date. Ledger balances are drawn off and liquidations made with creditors and debtors. As a preliminary to framing the proper financial statements, a trial balance of the separate accounts is extracted from the ledger so as to determine the mechanical accuracy of the clerical work. Inventories have been prepared of all the unused purchases of materials and supplies, and of the unsold product, both unfinished and finished; the bookkeeper sets them up in their proper places and proceeds to compile the financial statements. In order that these statements may be easily and promptly prepared, the records should be maintained in such a manner that this com-

* A paper presented at the annual meeting of the National Association of Cotton Manufacturers, Boston, April, 1918.

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piling may, as nearly as possible, be merely a work of transcribing. It has been found by experience that it is better to carry the record of business transactions in such a style that the detail necessary for the monthly statement falls into related groups. Then these groups separate themselves into the various unit members of the family of accounts, but with an arrangement susceptible of ready re-assembling.

Accounts naturally fall into four grand divisions. These are assets, liability, expense and earnings. Fine distinctions are drawn and other names are sometimes used, such as resources in place of assets and revenue for earnings, or, as in the case of a general trader, sales; but the meaning is practically the same, the nomenclature being determined by the nature of the business. Assets are grouped as fixed or capital assets, current assets and deferred assets. Liabilities are divided in the same way. The expense accounts of a cotton mill resolve themselves into those charges which enter into manufacturing cost, selling expenses and general expenses. Others may crop up, but these are the usual groups, aside from the raw material charges, which, in a way, come under the manufacturing costs, as do the supplies.

Much ingenuity has been exercised in the form and style of books designed to hold the current records, but perhaps the best method is known as the columnar system. A good exponent of this system is seen in the evolution of a record book known as the cash journal. This, as its name implies, is a book taking the place of the old-fashioned cash book and journal, arranged with a sufficient number of distributive columns to fit the needs of the business for which it is designed. The plan is to save time in carrying the monthly totals to the ledger in place of many detail postings. Thus the record of bales, pounds and cost of cotton for the month is carried to the ledger in one writing at the end of each month.

The separation of cotton mill operating accounts into the various groups makes for the more intelligent understanding of what the mill is doing. The purpose of this paper is to present a simple yet useful and practical plan of showing the financial operations at a minimum of time and expense with a maximum of result, a system which shall be sufficiently elastic to expand into the more intricate details of ascertaining the cost of numbered yarn and the different widths and weights of cloth, yet

allow the investigator to stop at the total average cost per pound and pound (or yard) price of goods sold.

One of the elements of good management is the keeping down of expenses. Unless the expenditure reduces the cost of manufacture or the general expense cost, managers are chary of allowing any more expense to be charged against the business than is absolutely necessary. There are scores of details which have to be considered in finding cotton mill costs; and some mill managers do not prove their manufacturing and other costs and their sales of products with their statement of assets and liabilities until the end of the calendar or fiscal year. It has been claimed that there is no urgent necessity to do this more than once a year; but if this were wholly true one might carry the thought further and say, "If we waited this long why trouble about it at all?" The preparation of trustworthy statements and reports takes considerable time and skill coupled with experience. To get out these statements means that some competent person will have to be engaged several days in each month on such work, which, of course, means additional expense. To obviate this, however, the books and accounts can be laid out in such a systematic manner that after trying out, and under intelligent supervision, the necessary items of information from the various departments will almost flow into their respective stations.

The purpose of accounts is to furnish, not year old history, but financial history—history which will be immediately available to forecast and make provision for periodical financial needs. By periodical, I mean weekly or monthly. Financial settlements are made by the month when not by the week, or for cash. Naturally, then, financial statements should review operations by the month, when not oftener. From this it may be seen that while it would be interesting to go into great detail in making up cost statements and to compare periodically the cost and production of each card, frame, or loom, yet it is not always commercially practicable to bring it down to such a fine point. It has been found well to work out these costs on general lines, thus: determine the number of bales of cotton which have been taken into the mill each day and opened. This record is entered on the consumption report. Then so many bales and (or) cuts of cloth come off the looms each day. This is entered with full

Cotton Mill Accounts

description on the production report. So much fuel, oil, starch, baling material, repairs, parts and other general supplies have been used today. These are all entered on the report of supplies and repairs. The keeping up with the purchases of supplies and repair parts, together with the issues of such, is a task which, while simple in theory, is difficult in practice, unless there is a regular supply man who has sole charge of them. This record should be kept on large loose leaves arranged in columnar form, suitably headed and designed as a perpetual inventory, showing daily accessions to stock and issues therefrom. Therefore it may be seen that the keeping of a complete record in the office of a cotton mill necessitates a great deal of work with the accompanying expense. Many mill managers fight shy of any additional expense that can be avoided and the result is that in a good many mill offices only such accounts are kept as cannot be avoided.

Most accountants agree that it would be well for the management to know each month its exact financial condition, as it may be disclosed by a statement of assets and liabilities, with the complementary statements of manufacturing cost, general sales (less expense of same), with the gross income account and deductions therefrom. In order to find the costs and values, a systematic account keeping should be maintained and the reports and statements constructed in the same manner each month.

The average cloth mill spinning its own yarn will find the following chart of accounts to cover its general needs. There may be need of greater detail for some mills, and yet other mills may consider it too comprehensive. Again, others may prefer different captions for the account.

CHART OF ACCOUNTS

Group A—Inventory Accounts

1. Raw cotton.
2. Cotton in process.
3. Yarn.
4. Partly finished cloth.
5. Finished cloth.
6. Supplies.
7. Miscellaneous inventories.

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Group B—Manufacturing

I. PRODUCTIVE LABOR

8. Superintendent.
9. Opening, picking and carding.
10. Spinning, spooling, and warping.
11. Slashing and drawing in.
12. Weaving.
13. Cloth room.
14. Miscellaneous productive labor.

II. GENERAL

15. Machine shop.
16. Steam plant or power.
17. Yard.
18. Overhead.
19. Machinery repairs.
20. Depreciation.
21. Miscellaneous general labor.

Group C—General Expense or Administrative Accounts

22. Salaries.
23. Office expenses.
24. Interest.
25. Insurance.
26. Taxes.
27. Repair mill buildings.
28. Repair tenant houses.
29. Miscellaneous expenses.

Group D—Selling Expenses

30. Freight out.
31. Drayage.
32. Commissions and discount.
33. Samples.
34. Other selling expenses.

Group E—Store Accounts

35. Store purchases.
36. Store expenses.
37. Store sales.
38. Store accounts receivable.

Group F—Sales Accounts

39. Cloth sales.
40. Miscellaneous sales.
41. Waste sales.

Group G—Other Income Accounts

42. Rent receipts tenant houses.
43. Miscellaneous receipts.

As a basis of account keeping lies in altering forms without

Cotton Mill Accounts

changing values, it will be interesting to review the economic principles contemplated in this list of accounts. For convenience we shall adhere to the idea of which the general ledger is the embodiment. That is, we shall charge to the proper account that which is received by or transferred to it and credit to the proper account that which is taken away or transferred from it.

1. Raw Cotton

To be charged with the inventory at first period and the cost, freight and drayage, storage and other direct charges of cotton purchased. The loss on hedges is a proper charge also, but where monthly or quarterly statistics are prepared, such charges make violent fluctuations in the pound averages as compiled periodically. To so great an extent is this true, especially where the loss is heavy, that it is considered to be the better policy to carry the hedges account until the end of the fiscal year and then transfer it direct to the profit and loss account. The same reasoning would apply if the hedges transactions resulted in a profit.

2. Cotton in Process

To be charged with inventory at first of the period and with the cost of the cotton in process. If it is desired, the distinction can be drawn here very finely and say that cotton in process consists of the cost of cotton plus labor, waste, supply, depreciation, interest upon the investment and other visible charges, if any, up to the spinning. These are the elements that would make up the inventory value of the cotton in process. It is closed out at the end of the period by an inventory prepared similarly to the one at the first of the period.

3. Yarn

To be charged with the inventory of yarn at the first of the period made up at the cost of yarn. This would be based upon the cost of the cotton in process, to which would be added the cost of yarn, arrived at in practically the same manner as the cost of cotton in process. Closed out at end of period like cotton in process.

4. Partly Finished or Unfinished Cloth

Charged with inventory at first and closed out at end of

period by inventory at last. The cost of the unfinished cloth would be the same as the cost of the finished cloth, except, of course, the cost of finishing. This is cloth room labor, baling, casing, supplies and miscellaneous charges.

5. Finished Cloth

Charged with inventory at first and closed out with inventory at last. Most mills separate their inventory accounts (up to No. 5) into raw material, cotton in process, and unfinished and finished goods. (Waste is considered under sales accounts.) The additional one of yarn is described to show how it should be treated if desired to carry it.

The cost of the finished cloth is determined by charging:

First. The cost of raw material.

Second. Plus the waste loss.

Third. Less the value of the sales of waste.

Fourth. Plus (or minus) the difference in the process inventories.

Fifth. Plus the manufacturing cost.

The distinction is made here, and it is the viewpoint of this paper, that the manufacturing cost does not include the general expense, or the regular charges against net income such as interest, taxes and the like. It is our purpose to hold manufacturing cost to the twenty-one accounts previously described.

6. Supplies

Charged with the inventory at the first of the period and closed out with the inventory at last. Comparatively few cotton mills keep a complete and proper record of supplies. Doubtless there may be what seem to be good reasons for this, but where the cost runs up to considerable value, it would appear to be good judgment to keep an exact account of the receipt and issue of general supplies and repair parts. The loose leaf or card system is well adapted to a record of this kind. I have seen an excellent example of this as "keeping tab" on, say, loom parts. The sheet should be ruled appropriately to take care of the date, number, and name or description of the part. After a record keeping system of this kind is installed and begun, it is not so trouble to maintain as this description might imply.

Cotton Mill Accounts

7. Miscellaneous Inventories

This is to cover any other kind of material or supply thought necessary to separate from those already considered.

Cotton Purchases

In some mills it is found desirable to keep account of cotton purchased separate from that of raw cotton inventory. In any case it is simply a division of the same material value. Cotton purchased should, of course, be charged with all of the raw material bought and the freight also, unless, as explained above, it is desired to carry these accessory charges on separate accounts. Some mills, whose accounting department is well developed, have adopted the idea of crediting this account with the cotton opened. It is a good plan to re-weigh cotton immediately before opening it. This brings out the "wet" loss and is also an effective check. It will be found invaluable in the preparation of the waste statistics. All possible information of this kind is valuable to the management as it may well lead to "tightening up" any loosenesses, and hence to economic saving. The credit of cotton opened to cotton purchased account should be on the basis of the invoice weight and if not the invoice cost, then at least the average cost. The consumption record should carry a column for re-weights, as well as for invoice weights. When properly maintained, then, this cotton purchased account becomes a current inventory account for the cotton.

1. Productive labor No. 8 to 14

2. General No. 15 to 21

These accounts, with supplies, make up the charges to manufacturing expenditure. The distinction between manufacturing expenditure and manufacturing cost is that the latter is obtained by setting up as a charge the inventory at first of raw cotton, cotton in process and waste, adding to this the cost of the cotton purchased for the period, and to this sum adding the total of the manufacturing expenditure. From this grand total, deduct the amount of similar inventories at last of the period and also deduct the amount of the sales of waste. All the accounts numbered eight to twenty-one are generally, if not always, covered by the familiar pay roll account. Many mills have an elaborate pay roll arrangement in an auxiliary book and charge the amount

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on their general ledger under an account known as pay roll or operatives account. In large mills where the clerical labor has to be considerably divided, this is a good plan; but if in the distribution of this clerical work, it is left to some record keeper who is not exact in his methods of properly writing up the charges to the various labor accounts, such as opening, picking, carding and the like, it makes it difficult, if possible, to get out correct statistics on pound costs. Pay roll record should be very carefully kept up. The labor cost is, of course, the big cost to the mill. The mill accounts should blend, one into the other. Thus, the raw material cost, increased by waste, then the supply and labor costs, then the general manufacturing and general expense, which with the selling expense constitutes the total cost of making and selling the goods.

Group C

The general expense or administrative costs are covered by accounts numbered twenty-two to twenty-nine. These are the usual ones incident to a mill.

General

The remaining accounts consist of the selling expenses, the store accounts, the sales accounts and other income accounts. They are all so well known as not to need any discussion, except perhaps the waste account.

Waste

It may be said that waste being unescapable, there is not much use in attempting to follow it out, but this is only partly true. Perhaps a certain percentage may be established as bagging and tie waste, as flyings from the cards, as motes, sweepings and thread waste, but even if for no other reason than keeping down this percentage should a continuous scrutiny and periodic examination be made of it. To those mills manufacturing a class of goods where the sizing reduces the net waste in weight, it becomes a matter of interesting enquiry to compare monthly or quarterly reports. For instance, if in a certain period the production of visible waste was 200,481 pounds on a total cotton consumption of 1,951,430 pounds, the percentage would be $10\frac{1}{4}$ per cent.

Cotton Mill Accounts

Then if the total production of finished goods was.....	1,785,750 lbs.
Total visible waste	200,481 lbs.
Total weight gotten out	1,986,231 lbs.
And the total consumption being	1,951,430 lbs.
We may see that the net waste has been overcome by	34,801 lbs.

The question then is: What is the total waste? With the knowledge of the weight of the visible waste and the weight of sizing, we may easily establish the total waste. The weight of the sizing material, deducted from the finished goods weight, would furnish a figure from which we could determine the real waste. Such statistics properly prepared give valuable standards for comparison.

Conclusion

The salient features of this system bring out correctly the following points:

1. The prime cost of cotton, meaning by this, invoice cost, freight, and drayage.
2. The increase due to waste. (Remember that we do not desire to make waste, we cannot help it.)
3. The manufacturing cost.

These three make the total prime and manufacturing cost, including waste.

4. The general cost. This covering all the other costs not previously considered except
5. The selling expenses, which are in the true sense a proper deduction from sales.

These five consolidated make the total of all costs, which deducted from the price per pound of cloth sold, etc., enables us to reach at last our final goal, the manufacturing profit per pound of cloth made and (or) sold.

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EDITORIAL

Annual Convention

During the third week in September the American Association of Public Accountants will hold its twenty-sixth annual convention. Boston is the place and the Certified Public Accountants of Massachusetts will be the entertaining society. The indications point to the largest meeting that the association has ever held. The natural increase in membership is one contributory cause, but the chief reasons for expecting a record gathering are that members are taking more interest, and the number of active participants in association work is growing steadily and fairly rapidly.

Such occurrences as the annual convention of the association are of great importance to the profession in all parts of the country. By bringing together the men engaged in practice in different states, it is possible to establish an understanding of the broader questions affecting the profession which would not be practicable otherwise. It has been found that the general progress of the profession has been more rapid since the plan of holding national conventions was adopted, and it has also

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been found that the annual meetings have done much to allay the sectional jealousies with which the profession is so abundantly cursed.

This year the programme will be notable for the unusual number of papers read and the quantity of time devoted to technical discussion. The customary sight-seeing and entertainments have been arranged, and the social part of the gathering promises to be delightful, but the more serious and beneficial part has been given special thought and the prospects are for a week of accountancy with a great deal of entertainment in lighter vein.

Every accountant whether a delegate or not should make it a point to attend this convention of his national organization.

Certificate Qualified

From time to time correspondents of this magazine revive the question of what constitutes legitimate qualification of an accountant's certificate attached to the financial statement of a client's affairs. Some of these gentlemen seem to wonder that the problem has not been solved and some definite decision reached as to what is and what is not permissible in modification of the certification of condition. But if one would pause to consider the matter it would appear a wonder if such standard had been set. While customs remain as they are it is impossible to fix a rule. In all probability the time will come before very long when the accountant will be able to establish a rule covering the majority of cases, but we doubt if the ideal of a universal practice in this particular will ever be attained.

It must be borne in mind that the business community is only beginning to apprehend the necessity of being frank in its relationship with the general public; and the public is hardly yet aware of the change which is taking place in commercial economics. Therefore, it is not amazing that the process of laying the cards on the table should be slow and gradual. The gratifying fact is that it has been steady.

The number of clients who think that a mere inspection of the books of account is sufficient to justify an accountant in certifying that things are as they should be, without any qualifica-

tion, is still unfortunately large; and the accountant is often placed in a most difficult position. He must determine whether or not he can consent to make such an incomplete and valueless audit. In nine cases out of ten he will make the audit and when appending his qualifying certificate will point out to the client that no value can be attached to a statement such as that in question.

Looking at the matter from the highest ethical viewpoint it must be admitted that the proper course for the accountant to pursue would be to refuse to conduct an audit unless opportunity were given for verifying inventories and accounts receivable and all other things having a bearing on the accounts. But here the difficulty arises that many clients would be estranged thereby, and unfortunately some accountants are not yet in a position to ignore the financial consideration. We may deplore this fact as we will, but it remains. The average accountant is not sufficiently independent to be able to dictate in this respect. Some of the better known are no doubt strong enough to enforce their will, but at present the average accountant is not, and consequently we must consider things as they are and not as we would have them.

Of course, every reputable accountant will absolutely condemn the idea of certifying to an incompletely investigated condition of affairs without stating that the information offered for his inspection was limited, but the regrettable truth is that in making such qualifications the accountant does not always make himself perfectly clear and forgets—to put it in its best light—forgets that the public will not grasp the significance of a certificate if there be the slightest ambiguity in the phraseology. And here is the point upon which a great reform may be effected. While waiting for the public to become so fully educated as to demand that all audits shall be complete a vast amount of good may be done by taking care that the words qualifying the incomplete report shall be capable of one construction only, and that one which will inform him who reads.

It may be perfectly correct for example to say that the accounts reflect the true condition of affairs as shown by the books, but it should never be forgotten that there is a considerable portion of the public which will not remember that there are things other than the books.

Editorial

A plain statement that the conditions are correctly shown followed by some such pregnant formula as "E. & O. E.," or one of a commoner sort, is another instance of the technically correct assertion which may grossly deceive the public.

It is against this sort of misleading presentation of the truth that accountants should set their faces. The entire profession should decline to make an investigation without ready access to all vital facts, but even if that time is not yet come, it were folly to overlook less evils while trying to effect the greater reform. It should be the determination of all accountants to insist that their qualifying phrases shall be absolutely convincing. The client who objects to the truth is the client whose name might well be lost from the accountant's list.

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CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

PROBLEM NO. 20 (DEMONSTRATION)

The following is the balance sheet on February 29, 1912, of John Barber, who has filed a voluntary petition in bankruptcy: land, \$10,000; buildings, \$25,000; machinery and tools, \$8,500; horses, wagons and harness, \$540; furniture and fixtures, \$1,200; merchandise, \$8,525; cash in bank, \$237; cash in hand, \$40; accounts receivable, \$5,465; notes receivable, \$2,000; bond and mortgage payable, \$18,000 (due July 1, 1912, interest 6 per cent last paid January 1, 1912); accounts payable, \$27,527; notes payable, \$10,000; capital, \$5,980.

An inspection of the books reveals the fact that the balance sheet is not complete, since the following items have not been considered: accrued interest on notes receivable, \$21.43; unexpired insurance, \$45; interest accrued on bond and mortgage payable, \$180; taxes accrued, \$65; interest accrued on notes payable, \$100.

After the appointment of the receiver the following facts were established: land has increased in value and is worth \$12,000; buildings have not been depreciated and are appraised at \$20,000; machinery and tools will bring, approximately, \$5,000; horses, wagons and harness, \$200; an offer of \$500 has been received for the furniture and fixtures; merchandise to the extent of \$500 is covered by the chattel mortgage of a creditor whose claim is \$350; another creditor whose claim is \$800 is less fortunate, holding a chattel mortgage of only \$625; the cash in hand contains a \$10 I. O. U. of an employee, which memorandum is worthless; accounts receivable are classified as good, \$3,575, doubtful, \$325, balance worthless; the notes receivable are considered good. The personal estate of John Barber consists of a house and lot, \$5,000, subject to a mortgage of \$2,000; money lent to a friend, \$200, which is good; household debts, \$257.

From the foregoing prepare:

- (a) Statement of affairs.
- (b) Deficiency account.

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SOLUTION TO PROBLEM NO 20

Statement of affairs and deficiency accounts seem to cause more unrest and trouble in the student world than any other class of statements. A problem bearing on insolvency or bankruptcy and calling for these statements seems to be the signal for a state of collapse which is more or less general. It is not uncommon to find instructors attaching an amount of importance to the subject which appears somewhat uncalled for.

If a student or anyone interested in the subject could be made to see that a statement of affairs is in effect an estimated balance sheet it might throw a different light on the subject. The occasion for such a statement arises when it becomes desirable to ascertain what the condition of the proprietor and his relation to creditors would be were the business to be wound up. It matters not whether the proprietor appear as a sole proprietor, copartners or a corporation, except in one or two cases which will be mentioned later. If the reader is able to imagine the sole proprietor of a business receiving from his bookkeeper a balance sheet showing assets comprising land, buildings and furniture, \$25,500; merchandise, \$10,000; cash, \$5,000; accounts receivable, \$8,000, and liabilities in favor of purchase creditors, \$33,500, the proprietorship will be seen to amount to \$15,000. Such an amount the business is said to be worth. If, however, the proprietor were to consider winding up or liquidating the business (not selling it as a going concern) a somewhat different condition might present itself. The land, buildings and furniture at forced sale might not bring more than \$15,000; merchandise, \$7,000. Accounts receivable might contain a number of debts which were worthless and others which could not be realized upon if speedy collection were attempted, so that only \$5,000 would be realized. Thus, if the hypothetical proprietor were to add these estimates and the cash together he would find that he could reasonably depend only upon \$32,000 with which to pay creditors, \$33,500. The result, if his estimates were correct, would be that instead of having a capital of \$15,000, he would be owing \$1,500 more than he had assets, or he would have a "deficit" of \$1,500. If he were to start with the balance sheet taken from the books and compare the items one by one with the estimates, the result would be as below and he would have the foundation of a statement of affairs.

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<i>Assets</i>	Per book	Estimated to realize	<i>Liabilities</i>	Per book	Estimated liqui- dation
Land, bldgs. and fur- niture	\$25,500	\$15,000	Accounts payable	\$33,500	\$33,500
Merchandise	10,000	7,000			
Cash	5,000	5,000	Proprietorship		
Accounts receivable..	8,000	5,000	(surplus)	15,000	
	<u>\$48,500</u>			<u>\$48,500</u>	
		\$32,000			
Deficit		1,500			
		<u>\$33,500</u>			<u>\$33,500</u>

If an attempt is made to ascertain the cause of the deficit, a comparison of the amounts estimated to be realized will show an estimated loss of \$10,500 on land and buildings, \$3,000 on merchandise and \$3,000 on accounts receivable, or a total of \$16,500. Against this estimated loss there is the proprietor's capital of \$15,000 to be offset, revealing again the fact that his capital has been wiped out and that his assets are insufficient to the extent of \$1,500 to meet his creditors. These figures may be moulded into a deficiency account as follows:

<i>Debits</i>	<i>Credits</i>
Estimated losses on realization:	Proprietorship .....\$15,000
Land, bldgs. and furniture.\$10,500	
Merchandise 3,000	Deficit 1,500
Accounts receivable 3,000	
<u>\$16,500</u>	<u>\$16,500</u>

A statement of affairs is typical of insolvency although it is conceivable that it might be prepared out of curiosity when insolvency was not suspected. It is analogous in the case of insolvency to the balance sheet in solvency in that it shows financial condition, which, however, is estimated. Like the balance sheet it is prepared by or in behalf of the proprietor. Since

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an important feature of the statement is to show the relation to creditors, especially those whose claims are unsecured the impression sometimes gains recognition that the statement is made up from the point of view of creditors. This, together with the fact there is usually an excess of liabilities over assets, has led to a transposition of the two sides as they appear in the balance sheet. The argument in favor of the transportation when based on the assumption that it is a creditor's statement should be ignored for the reason that it is no more a creditor's statement than is a balance sheet. The argument relative to the excess of liabilities over assets has some foundation, but the objection to it, as will be seen later on, is that with the numerous contras which have to be deducted it is very confusing to transpose the sides without anything in particular being gained.

In the same way that the statement of affairs is analogous to the balance sheet the deficiency account is analogous to the profit and loss account. The profit and loss account explains the fluctuation in proprietorship. The deficiency account serves in a similar way to connect the proprietorship as shown by the balance sheet with the deficit as shown by the statement of affairs.

It should be borne in mind that both statement of affairs and deficiency account are statements which are prepared apart from the books and that the books are not adjusted to agree with them. Realization and liquidation which follows insolvency rarely coincides with the estimate and therefore to adjust the books in accordance with the estimate would result in hopeless confusion.

There are perhaps one or two general remarks concerning these statements which should be made before proceeding to the solution of the present problem, namely, that any assets or liabilities of the business which do not appear on the books should be treated as if such were the case and accordingly added to the items in the balance sheet. There should also be included, in the case of a sole proprietor, his personal estate since business and personal creditors rank equally in the distribution of the combined business and personal estate.

A working sheet will be found valuable in this type of problem. It differs from those used in previous problems but

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is fully as useful. It may be criticized on the ground that it consumes considerable time; but the accuracy which results and the facility with which the statements may be prepared seem to justify the means. By applying the principles embodied in the simple case illustrated above it will be seen that the increases and decreases resulting from the application of the estimated realization and liquidation to the balance sheet or book figures will, when applied to the proprietorship, produce the deficit. Thus the figures will all be tied up before starting on the statements and the attention may be devoted the more important matter of arrangement.

WORKING SHEET FOR STATEMENT OF AFFAIRS AND DEFICIENCY ACCOUNT

<i>Assets</i>	Per books	Estimated realization and liquidation	Increase	Decrease
Land	\$10,000.00	\$12,000.00	\$ 2,000.00	
Buildings	25,000.00	20,000.00		\$ 5,000.00
Machinery and tools	8,500.00	5,000.00		3,500.00
Horses, wagons and harness	540.00	200.00		340.00
Furniture and fixtures	1,200.00	500.00		700.00
Merchandise	8,525.00	8,525.00		
Cash in bank	237.00	227.00		10.00
Cash in hand	40.00	40.00		
Accounts receivable	5,405.00	3,575.00		1,890.00
Notes receivable	2,000.00	2,000.00		
Accrued interest on notes rec....	21.43	21.43		
Unexpired insurance	45.00	45.00		
Personal estate:				
House and lot	5,000.00	5,000.00		
Loan receivable	200.00	200.00		
Total assets	\$66,773.43	\$57,333.43		
<hr/>				
<i>Liabilities</i>				
Bond and mortgage payable	\$18,000.00	\$18,000.00		
Accounts payable	27,527.00	27,527.00		
Notes payable	10,000.00	10,000.00		
Interest accrued on B/M.....	180.00	180.00		
Taxes accrued	65.00	65.00		
Int. accrued on notes payable	100.00	100.00		
Personal debts:				
Mortgage on house and lot	2,000.00	2,000.00		
Household debts	257.00	257.00		
Total liabilities	\$58,129.00	\$58,129.00		
<hr/>				
Capital as adjusted	\$ 8,644.43	\$ 795.57	\$ 2,000.00	\$11,440.00

From the above the statement of affairs and deficiency account may be prepared. The statement of affairs is arranged

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with the assets and deficit above liabilities in order to show one of the variations in form. A statement showing the assets and liabilities in account form will be presented in connection with a subsequent problem.

JOHN BARBER

STATEMENT OF AFFAIRS—AS OF FEBRUARY 29, 1912

<i>Assets and Deficit</i>	Book Value	Estimated realization and liquidation
Cash	\$ 277.00	\$ 267.00
Merchandise	\$ 8,525.00	
Less—mtges.—per contra	\$350.00	
	625.00 975.00	7,550.00 7,550.00
Accounts receivable:		
Good	3,575.00	3,575.00
Doubtful	325.00	
Bad	1,565.00	
Notes receivable and interest	2,021.43	2,021.43
Loans receivable	200.00	200.00
Furniture and fixtures	1,200.00	500.00
Horses, wagons and harness	540.00	200.00
Machinery and tools	8,500.00	5,000.00
Land and buildings	\$35,000.00	
Less—mtge.—per contra	18,000.00	17,000.00 14,000.00
House and lot	\$ 5,000.00	
Less—mtge.—per contra	2,000.00	3,000.00 3,000.00
Unexpired insurance	45.00	45.00
Total assets	\$45,798.43	\$36,358.43
Less—preferred claims—taxes (per contra)		65.00
Net assets—subject to expenses of receivership avail- able for unsecured creditors—representing 97.85 plus per cent of their claims		\$36,293.43
Deficit		795.57
Total assets and deficit		\$37,089.00
Liabilities		
Preferred claims (deducted per contra):		
Taxes	\$ 65.00	
Creditors:		
Fully secured (deducted per contra):		
Bond and mortgage—land and buildings	18,000.00	
Bond and mortgage—house and lot	2,000.00	
Chattel mortgage	350.00	
Partly secured (deducted per contra):		
Chattel mortgage	625.00	
Unsecured		\$37,089.00
Liabilities (unsecured creditors)		\$37,089.00

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JOHN BARBER

DEFICIENCY ACCOUNT

Debits	Credits
Non-ledger liabilities:	Capital per ledger\$ 5,980.00
Interest acc. on B/M payable\$ 180.00	Add:
Taxes accrued 65.00	Non-ledger assets:
Int. acc. on N/P..... 100.00	Acc. int. on N/R..... 21.43
Personal liabilities:	Unexpired insurance.. 45.00
Mtge. on house and lot 2,000.00	Personal assets:
Household debts 257.00	House and lot 5,000.00
Balance 8,644.43	Loans receivable 200.00
\$11,246.43	\$11,246.43
Estimated losses on realization:	Bal. cap. as adjusted.....\$ 8,644.43
Buildings\$ 5,000.00	Estimated gain on realization:
Machinery and tools.... 3,500.00	Land 2,000.00
Horses, wagons and har. 340.00	
Furniture and fixtures.. 700.00	Deficit—per statement of
Cash 10.00	affairs 795.57
Accs. receivable 1,890.00	
\$11,440.00	\$11,440.00

Theoretically the assets and liabilities should be arranged in the statement of affairs in the order that they will be realized and liquidated. This is practicable with regard to the liabilities, but scarcely possible if strict accuracy is to be required with the assets. No one can tell whether furniture and fixtures will be sold ahead of merchandise or what will happen. The order is at best an estimate based on the probabilities as determined by the experience of ordinary business routine.

Criticism is sometimes raised in connection with the employment of the terms "book value," since it is argued that the statement contains items which are not on the books. While this may be true, so far as problems are concerned, the items probably should be put on the books before a final trial balance is taken.

PROBLEM NO. 20-A (PRACTICE)

The following is the balance sheet on March 31, 1912, of William Pearce, who has filed a voluntary petition in bankruptcy:

Department of Practical Accounting

land, \$15,000; buildings, \$40,000; machinery and tools, \$9,000; horses, wagons and harness, \$600; furniture and fixtures, \$1,500; merchandise, \$9,375; cash in bank, \$126; cash in hand (including worthless memorandum of \$8), \$30; accounts receivable, \$8,792; notes receivable, \$1,500; bond and mortgage payable, \$35,000; accounts payable, \$26,998; notes payable, \$15,000; capital, \$8,925.

Items not on the books are: interest accrued on notes payable, \$150; unexpired insurance, \$37.50; interest accrued on bond and mortgage payable, \$350; accrued interest on notes receivable, \$32.45; taxes accrued, \$87.50.

The personal estate consisted of securities of the market value of \$8,787.50 (cost, \$10,000), which were deposited as collateral to secure a personal loan of \$5,000 and personal living expenses amounting to \$375.

The land and buildings were appraised at \$47,000 (of which \$18,500 pertained to the land); machinery and tools, \$7,500; horses, wagons and harness, \$250; furniture and fixtures, \$300; there are two chattel mortgages on the merchandise, one of \$1,236 in favor of a creditor whose claim is \$975, and another of \$975 in favor of a creditor whose claim is \$1,263; the cash in hand contains postage stamps, \$2.40; of the accounts receivable \$4,525.72 are good, \$1,262.34 are doubtful, but will probably realize 20 per cent, and the balance are considered worthless; the notes receivable are worthless.

From the foregoing prepare:

- (a) Statement of affairs.
- (b) Deficiency account.

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ANSWERS BY JOHN H. SCHNACKENBERG, C.P.A.*

PRACTICAL ACCOUNTING—PART I

QUESTION 3

The Cambria Company is engaged in the manufacture and the sale of millinery. It buys and sells, in addition, gowns, veillings, laces, furs and novelties. Its factory, salesrooms and offices are located in one building.

All its sales are made by salesmen or saleswomen either in the salesroom or on the road. Millinery is sold at retail and at wholesale, while the other classes of merchandise are sold at retail only. All retail sales are recorded by means of sales tickets numbered consecutively and used as a direct medium of posting.

Wholesale sales are made on credit only, while retail sales are partly on credit and partly for cash.

The firm desires to obtain accurate results of operation *regardless of overhead expenses* of each class of goods.

It also desires a form of retail ledger that would reduce the considerable labor entailed heretofore at the first of each month, due to the fact that the monthly statements give details of sales to customers.

- (a) Prepare proper form and ruling of a sales summary to take care of the retail sales only.
- (b) Prepare proper form and ruling of a retail customers' ledger, to comply with the requirements mentioned above.
- (c) Give instructions for the operation of two books.

ANSWER TO QUESTION 3

Instructions for the Operation of the Books under (1) and (2)

OPERATION OF SALES SUMMARY

The first column, as in any other sales book, shows the date of the sales. The column headed "Ticket Numbers" contains the total number of tickets used by any one salesman or saleswoman during the day, so that one line is used for each sales person's activities.

As the name of the book implies the record of the sales is to be in summarized form showing the totals of the series thus, 18001-18005, 20150-20159, etc.

* Mr. Paul-Joseph Esquerré has found himself unable to devote the time required to continue the presentment of his solutions in THE JOURNAL, and Mr. Schnackenberg has kindly consented to complete the January examinations.

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SALES SUMMARY

[illegible]

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Returns are recorded in red ink, and are deducted when the page is footed; a separate line being used for each sales person, as in connection with the sales.

The combination column shows the total sales which proves and balances the distribution columns, making each page self-balancing.

The distribution column shows the allocation of all retail sales, whether on credit or for cash, to the respective accounts affected by the sales.

At the end of the month the total of the charge column is posted to the retail customers' controlling account in the general ledger. The cash column is not posted, as this debit is posted from the cash book. The footing of each respective distribution column is, of course, posted to the credit of the account of the same heading in the general ledger.

It is to be borne in mind that the total footings of the sales summary represent net sales, the credits having been deducted daily.

OPERATION OF THE RETAIL CUSTOMERS' LEDGER

Charge tickets to retail customers are transcribed to this ledger. The ledger page is so arranged that two-thirds of the page is devoted to the description of the sales, while only one-third of the page is given over to the record of the credits. The headings are self-explanatory and the first part of the form is operated in the same way as any ordinary sales book. The second part of the form deals with the credits to the customer by reason of payment, return, allowance, etc.

Transcription of the daily sales tickets to the ledger precludes any necessity for a retail sales book or any reference to the original sales ticket when the statements are prepared. The importance of the daily posting of retail sales tickets is greater than that of the posting of any other book, because of the absence of a daily sales book.

QUESTION 5

A land development company, capitalized at \$425,000 on January 1, 1911, owns a large parcel of land in Westchester county. \$400,000 of the capital stock has been issued for the land which has been divided into one thousand (1,000) lots of equal dimensions. The organization consists of an administrative office located in New York City and an agency office located in White Plains. At the head of the White Plains office there is a manager who receives a compensation of 3 per cent of the gross sales. The terms of his contract compel him to keep a set of books in which the entries are made from memoranda submitted by the New York office, and debar him from selling any lot at a price less than the book value at which it stands. All expenses are to be borne by the New York office.

In connection with accounting, the company's policy is to capitalize

RETAIL CUSTOMERS' LEDGER

[illegible]

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yearly, at December 31, by prorating over the lots unsold: (a) the interest, at 4 per cent, on the book value of the lots unsold at January 1 of the prior year, (b) the operating losses, if any, of the period just closed. It is understood, however, that if the operating results of any period are adequate for the purpose, they will be applied to offset the capitalization of losses of former years.

The cash book kept at the New York office shows for the two years ended December 31, 1912:

<i>Receipts</i>		<i>Disbursements</i>	
	12/31/11 12/31/12		12/31/11 12/31/12
Capital stock	\$ 3,000	Office expense,	
Sales (60 lots)*..	19,000	New York...	\$ 1,435.00 \$ 1,650.00
Sales (160 lots)..	\$54,425.00	Office expense,	
Interest on pur-		White Plains.	2,647.82 2,530.50
chase money		Salaries of sell-	
mortgage	300 2,000.00	ing agents ...	8,500.00 9,000.00
Deposits to secure		Compensation—	
sales	215.00	White Plains	
		manager	870.00
		Advce. to man.	
		White Plains	
		office	1,500.00
	<u>\$22,300 \$56,640.00</u>		<u>\$13,452.82 \$14,680.50</u>

The general ledger, which has not been closed for the two years of the company's life, shows at December 31, 1912: purchase money mortgage, \$38,000; investment in land, \$400,000. The sale price of the lots has been obtained from memoranda established by the president of the company and now in possession of the officers of the company, as well as of the White Plains manager. You have been retained to close the books as of December 31, 1912, and to submit financial statements.

Prepare:

- (a) The balance sheet at close of business December 31, 1912.
- (b) The general ledger accounts for the two years ending December 31, 1912, whether closed or remaining open.

* Sold for \$29,000.

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ANSWER TO QUESTION 5

GENERAL LEDGER ACCOUNTS

Land (1,000 lots)

1911			1911		
1/1	Capital stock	\$400,000.00	12/31	Sales of 60 lots at	
12/31	Interest on capital			\$400.00	24,000.00
	invested	16,000.00		Balance	400,452.82
	Operating account				
	(loss)	8,452.82			
		<u>\$424,452.82</u>			<u>\$424,452.82</u>
1912			1912		
1/1	Balance	\$400,452.82	12/31	Sales of 160 lots	
12/31	Interest on capital			at \$426.74	\$ 68,171.84
	invested	16,018.11		Balance	349,699.18
	Operating account				
	(loss)	1,400.09			
		<u>\$417,871.02</u>			<u>\$417,871.02</u>
1913					
1/1	Balance	\$349,699.18			

Cash

1911			1911		
1/1	Capital stock	\$ 3,000.00	12/31	N. Y. office ex-	
12/31	Sales of land	19,000.00		pense	1,435.00
	Int. on purchase			White Plains office	
	money mortgage.	300.00		expense	2,647.82
				Salaries of sales	
				agents	8,500.00
				Coms. of White	
				Plains manager.	870.00
				Balance	8,847.18
		<u>\$ 22,300.00</u>			<u>\$ 22,300.00</u>
1912			1912		
	Balance	\$ 8,847.18	12/31	N. Y. office ex-	
12/31	Sales of land	54,425.00		pense	1,650.00
	Int. on purchase			White Plains office	
	money mortgage	2,000.00		Expense	2,530.50
	Deposit to secure			Salaries of sales	
	lands	215.00		agents	9,000.00
				Advances to White	
				Plains manager.	1,500.00
				Balance	50,806.68
		<u>\$ 65,487.18</u>			<u>\$ 65,487.18</u>
1913					
1/1	Balance	50,806.68			

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Purchase Money Mortgage

1911	Sale of land	\$ 10,000.00
1912	Sale of land	<u>28,000.00</u>
		<u>\$ 38,000.00</u>

New York Office Expense

1911	12/31	Cash	\$ 1,435.00	1911	12/31	Operating account..	\$ 1,435.00
1912	12/31	Cash	<u>1,650.00</u>	1912	12/31	Operating account.	<u>1,650.00</u>

White Plains Office Expense

1911	12/31	Cash	\$ 2,647.82	1911	12/31	Operating account..	\$ 2,647.82
1912	12/31	Cash	<u>\$ 2,530.50</u>	1912	12/31	Operating account.	<u>2,530.50</u>

Salaries of Sales Agents

1911	12/31	Cash	\$ 8,500.00	1911	12/31	Operating account..	\$ 8,500.00
1912	12/31	Cash	<u>9,000.00</u>	1912	12/31	Operating account.	<u>9,000.00</u>

Commissions of White Plains Manager

1911	12/31	Cash	\$ 870.00	1911	12/31	Operating account..	\$ 870.00
1912	12/31	Coms. accrued ...	<u>2,472.75</u>	1912	12/31	Operating account.	<u>2,472.75</u>

Advances to White Plains Manager

1912	12/31	Cash	\$ 1,500.00	1912	12/31	Coms. accrued	\$ 1,500.00
------	-------	------------	-------------	------	-------	--------------------	-------------

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Capital Stock

1911		
1/1	Land	\$400,000.00
	Cash	3,000.00
		<u>\$403,000.00</u>

Commissions Accrued—White Plains Manager

1912		1912	
12/31	Cash (advance) ..\$	12/31	Coms. to White
	Balance		Plains manager.
	1,500.00		2,472.75
	<u>972.75</u>		<u>\$ 2,472.75</u>
	\$ 2,472.75	Balance	\$ 972.75

Deposits to Secure Sales

1912	
12/31	Cash
	<u>\$ 215.00</u>

Reserve for Reduction of Book Value of Land Property

1911	Profit and loss ...\$	8,452.82
1912	Profit and loss ...	1,400.09
		<u>\$ 9,852.91</u>

Sales of Land

1911		1911	
12/31	Land (book value	12/31	Cash
	of 60 lots sold) ..\$		Purchase money
	Operating account		mortgage
	(gross profit) ..		10,000.00
	24,000.00		<u>\$ 29,000.00</u>
	<u>5,000.00</u>		
	<u>\$ 29,000.00</u>		
1912		1912	
12/31	Land property	12/31	Cash
	(book value of		Purchase money
	160 lots sold) ...\$		mortgage
	Operating account		54,425.00
	(gross profit) ..		28,000.00
	68,171.84		<u>\$ 82,425.00</u>
	<u>14,253.16</u>		
	<u>\$ 82,425.00</u>		

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Operating Account

1911	
12/31	N. Y. office ex- pense\$ 1,435.00
	White Plains office expense 2,647.82
	Salaries of sales agents 8,500.00
	Coms. of White Plains manager. 870.00
	<u>\$ 13,452.82</u>

1911	
12/31	Sales of land (gross profit) ..\$ 5,000.00
	Land 8,452.82
	<u>\$ 13,452.82</u>

1912	
12/31	N. Y. office ex- pense\$ 1,650.00
	White Plains office expense 2,530.50
	Salaries of sales agent 9,000.00
	Coms. of White Plains manager. 2,472.75
	<u>\$ 15,653.25</u>

1912	
12/31	Sales of land (gross profit) ..\$ 14,253.16
	Land 1,400.09
	<u>\$ 15,653.25</u>

Interest on Capital Invested

1911	
12/31	Profit and loss ...\$ 16,000.00
	<u> </u>
1912	
12/31	Profit and loss ... 16,018.71
	<u> </u>

1911	
12/31	Land (4% on \$400,000)\$ 16,000.00
	<u> </u>
1912	
12/31	Land (4 % on \$400,452.82) 16,018.17
	<u> </u>

Interest on Purchase Money Mortgage

1911	
12/31	Profit and loss ...\$ 300.00
	<u> </u>
1912	
12/31	Profit and loss ... 2,000.00
	<u> </u>

1911	
12/31	Cash\$ 300.00
	<u> </u>
1912	
12/31	Cash\$ 2,000.00
	<u> </u>

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Profit and Loss

1911 12/31	Reserve for reduction of book value of land ...	8,452.82	1911 12/31	Interest on capital invested	\$ 15,000.00
	Surplus	7,847.18		Int. on purchase money mortgage.	300.00
		<u>16,300.00</u>			<u>16,300.00</u>
1912 12/31	Reserve for reduction of book value of land ...	\$ 1,400.09	1912 12/31	Interest on capital invested	\$ 16,018.71
	Surplus	16,618.02		Int. on purchase money mortgage.	2,000.00
		<u>\$18,018.11</u>			<u>\$18,018.71</u>

Surplus

1911 Profit and loss	\$ 7,847.18
1912 Profit and loss	\$ 16,618.02
	<u>\$ 24,465.20</u>

General Balance Sheet at December 31, 1912

<i>Assets</i>	<i>Liabilities</i>
Land	Capital stock:
Purchase money mort....	Authorized ..
Cash	Unissued
	Issued and outstanding
	Deposits to secure sales..
	Commissions accrued ...
	Reserves for reduction of book value of land
	Surplus
<u>\$438,505.86</u>	<u>\$438,505.86</u>

QUESTION 6

In accordance with the provisions of a plan drawn by its prospective manager, a syndicate is created for the purpose of obtaining control of certain business interests at present organizing in a neighboring state. The members of the syndicate have in consequence contributed \$1,500,000 in cash, which, pending developments, has been invested in railway bonds, acquired at par, and placed in the hands of a trustee.

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In due course the trustee enters into an agreement with the A. K. Company, organized with an authorized issue of \$3,500,000 of capital stock, of which 2,000 shares have already been subscribed to and paid for by incorporators and others. According to the terms of the agreement, the trustee is to deliver to the company the securities that he holds, plus \$700,000 in cash, in exchange for the company's *potential* stock. In case, however, the trustee should fail to pay the cash into the company's treasury within thirty days, he is to return to the company two shares of stock for every \$100 of cash not paid.

The members of the syndicate having failed to respond to the demand of the trustee for additional contribution, the syndicate is dissolved, and the trustee, unable to pay any cash, returns the stock to the company.

Simultaneously a second syndicate is formed under the same management. It contracts to purchase at par the securities held by the A. K. Company, in consideration of a bonus of three-fifths of the shares of stock surrendered by the first syndicate. Half of the purchase price is paid at once, the other half is payable one month later, *i. e.*, June 30, 1911.

Prepare:

- (a) The journal entries expressing the above facts on the books of the A. K. Company.
- (b) The balance sheet of the company at May 31, 1911.

ANSWER TO QUESTION 6

A. K. COMPANY

JOURNAL ENTRIES

Cash	\$ 200,000.00	
To capital stock		\$ 200,000.00
For issue of capital stock in consideration of cash subscriptions to 2,000 shares.		
Investment in bonds of other companies	1,500,000.00	
Syndicate No. 1	700,000.00	
Organization expense	1,100,000.00	
To capital stock		3,300,000.00
For issue of capital stock to syndicate No. 1 under terms of agreement on file.		
Treasury stock	1,400,000.00	
To syndicate No. 1		700,000.00
Organization expense		700,000.00
For 14,000 shares of capital stock returned by syndicate No. 1 for failure to pay the amount stipulated in agreement.		
Syndicate No. 2	1,500,000.00	
To investments in stock		1,500,000.00

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To record sale of securities held by the company to syndicate No. 2, as per agreement on file.

Organization expense	840,000.00	
To treasury stock		840,000.00

To record issue of treasury stock given to syndicate No. 2 as a bonus for purchase of securities as above set forth.

Cash	750,000.00	
To syndicate No. 2		750,000.00

For cash received on account of contract.

LEDGER ACCOUNTS

Capital Stock

Cash	\$ 200,000.00
Sundry	3,300,000.00
	\$3,500,000.00

Cash

Subscriptions	\$ 200,000.00
Syndicate No. 2	750,000.00
	\$ 950,000.00

Investment in Bonds of other Companies

Capital stock	\$1,500,000.00	Syndicate No. 2	\$1,500,000.00

Syndicate No. 1

Capital stock	\$ 700,000.00	Treasury stock	\$ 700,000.00

Organisation Expenses

Capital stock	\$1,100,000.00	Treasury stock	\$ 700,000.00
Treasury stock	840,000.00	Balance	1,240,000.00
	\$1,940,000.00		\$1,940,000.00
Balance	\$1,240,000.00		

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Treasury Stock

Sundry	\$1,400,000.00	Organization expense ..	\$ 840,000.00
		Balance	560,000.00
	<u>\$1,400,000.00</u>		<u>\$1,400,000.00</u>
Balance	\$ 560,000.00		

Syndicate No. 2

Investment bonds	\$1,500,000.00	Cash	\$ 750,000.00
		Balance	750,000.00
	<u>\$1,500,000.00</u>		<u>\$1,500,000.00</u>
Balance	\$ 750,000.00		

Balance Sheet of A. K. Company at May 31, 1911

<i>Assets</i>		<i>Liabilities</i>	
Cash	\$ 950,000.00	Capital stock	\$3,500,000.00
Treasury stock	560,000.00		
Organization expense ..	1,240,000.00		
Syndicate No. 2	750,000.00		
	<u>\$3,500,000.00</u>		<u>\$3,500,000.00</u>

COMMENTS OF PROBLEM 6

Properly to solve this problem a candidate must be familiar with the methods of corporate finance.

To provide the new corporation with capital the syndicate was organized, and the terms of the agreement provided for the delivery by the company of \$3,300,000 par value of stock for \$2,200,000 in cash. To do this and free the stock from assessments a method had to be devised to make the stock full paid which would not require the payment of its par value in cash.

This method is the issuing of stock for property, bonds, stocks or services; and in placing a value upon the property purchased the directors are not limited strictly to the sum for which the property would sell for cash.

The difference between the par value of the stock delivered and the securities received represents the cost of obtaining capital, and is therefore properly chargeable to organization expense.

Another point of interest is the illustration of methods used to depress the price of stock. The first syndicate fails to pay the cash set forth in the agreement, knowing that the directors, in their desire to realize cash on the securities held by the company, will make even more liberal terms to a second syndicate than they may have been inclined to do with the first syndicate. In the problem the members of the syndicate therefore receive a bonus of \$840,000 in treasury stock for converting the securities into cash, which is an additional amount to be charged to organization expense.

Interest on Capital as Part of Production Cost

[The discussion which has occupied many pages of THE JOURNAL for the past few months on the question whether or not interest should be included as part of the cost of production has represented divergent views of many accountants, some of whom have treated the subject in an academic manner and some merely from the narrow viewpoint of the factory manager or accountant. As a further contribution to the subject the following report by the special master appointed by the U. S. Circuit Court of Appeals at St. Paul is of great importance as showing the legal view of the matter.—Editor, THE JOURNAL OF ACCOUNTANCY.]

WOLF BROS. & Co., Complainant, vs. HAMILTON-BROWN SHOE Co., Defendant.

This was a bill in equity brought by Wolf Bros. & Co., of Cincinnati, against the Hamilton-Brown Shoe Company, of St. Louis, in the circuit court of the United States of the eighth judicial district. Plaintiff manufactured a shoe known as the *American Girl*. Defendant manufactured a shoe known as the *American Lady*. In its accounting for profits the defendant sought to charge interest on the value of its plant as part of the cost of production, in the sum of \$82,184.92.

The action was first brought for infringement of a trade-mark and for unfair competition in trade. Upon hearing, Dyer, J., dismissed the complaint.

Complainant appealed to the United States court of appeals, which remanded the case, ordered judgment for complainant, and ordered an accounting, holding that the trade-mark was invalid, and that the recovery was based upon unfair competition in trade (165 Fed., 413, Nov. 17, 1908).

The case was then referred to me and I filed my report on October 4, 1911, recommending judgment for \$445,311.55.

On January 23, 1912, the court, Dyer, J., sustained exceptions to my report and reduced my finding to one dollar, with all costs against the complainant (192 Fed., 930).

On May 19, 1913, the United States court of appeals reversed and remanded the cause to the district court, sustained my report upon every point, and ordered the court to enter a judgment for the amount of my finding, \$445,311.55.

The accounting disclosed that during the period in controversy the defendant did business to the amount of nearly fifty millions of dollars.

In segregating the profits and expenses applicable to the prohibited manufacture, vast sums were claimed by the defendant to be allowed in diminution of profits.

My action in allowing or overruling such claims was in all things sustained by the court of appeals.

I allowed the defendant's claim for interest on borrowed money to the amount of \$593,875.33.

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I disallowed the defendant's claim for interest on capital in the sum of \$82,184.92.

My reasons for so doing appear in my report.

HENRY DENISON,
Master.

REPORT OF THE MASTER ON "INTEREST"

INTEREST ON CAPITAL

It is claimed on the part of the defendant that one of the items of offset, in diminution of the profits, is the amount of interest on the plant and on the capital invested in the business.

I am unable to see how this can equitably be claimed in the case at bar. There is nothing in the evidence to show that any plant was erected, or any capital was invested, having for its special object the manufacture and marketing of the brand of shoes marked *American Lady*.

Even if that were the case, it might be doubted whether upon capital invested and plant erected for the purpose of doing a wrong, interest could equitably be charged upon the investment in diminution of the damages suffered by the victim of the wrong.

But it appears on page 413 of the printed record of the court of appeals in the testimony of Mr. McElroy, that the defendant simply "adopted the name *American Lady* for a certain line of shoes made by the Hamilton-Brown Shoe Company."

In other words, in furtherance of its scheme of unfair trade which the court of appeals has found existed, the defendant spent nothing, built nothing, invested nothing, beyond what it had already spent, built, and invested, excepting only what was spent in "getting our cartons, and stencils and stamps, etc., made."

The defendant decided to adopt the name *American Lady* for a certain line of women's shoes, in August or September, 1900.

"Our records show that the first case of these goods was sent out of the factory November 7, 1900. The length of time elapsing between the time of selecting the name and delivering the shoes was taken up by getting our cartons and stencils and stamps, etc., made" (p. 413).

It seems to me that the rule laid down by the supreme court of the United States in the following case, upon exceptions to the master's report, is the rule which must govern in the case at bar.

"He refused to allow manufacturer's profits and interest on the capital stock. This was correct. The profits made in violation of the rights of the complainants in this class of cases, within the meaning of the law, are to be computed and ascertained by finding the difference between cost and yield. In estimating the cost, the elements of price of materials, interest, expenses of manufacture and sale, and other necessary expenditures, if there be any, and bad debts, are to be taken into the account,

Interest on Capital as Part of Production Cost

and usually nothing else. *The calculation is to be made as a manufacturer calculates the profits of his business.*"

Rubber Company vs. Goodyear, 76 U. S., 788-804.

"The master properly refused to allow the defendant, as an element of the 'factory cost' * * * interest on the capital of the corporation invested in its business."

Am. Ende vs. Seabury, 43 Fed. Rep., 672.

It further appears, so far as the books of the defendant show, that no interest upon the plant or upon the capital invested in the business was ever charged or paid by the defendant or ever entered into its calculations in estimating the gross or net profits of the concern in any year involved in this inquiry, nor *ever* until it appears in the Hart tabulation on page 8, in defendant's reply brief furnished me.

The testimony of Mr. Kribben, the expert accountant (*Record*, page 515), establishes the fact that the defendant, for its own information as to profit and loss, had its books audited annually by a firm of expert accountants.

Mr. Kribben's testimony and schedules which are compiled exclusively from the annual reports made to the defendant by its own experts, show that the defendant in its annual audit never charged the interest on its plant and capital against the profits. It is perfectly clear to my mind that the interest which defendant never charged against itself in estimating its own profits cannot in equity be charged against the complainant in diminution of the profits due the complainant under the decree.

If the defendant, for the purpose of diminishing the profits due complainant, claims to charge interest on its capital against the cost of production, it should also credit the interest earned on the capital with the amount so charged. This must result when the manufacturer draws a distinction between profits arising from production and interest on the capital.

It is a mere matter of bookkeeping. It is wholly fictitious. No money is paid out as an expense as interest on the capital. No money is received as interest on the capital invested. To make a correct balance of the books, the interest charged on the capital must be credited with the interest earned on the capital, otherwise the results will not balance. As the profit is thus shifted from one of manufacture to one of interest on the investment, the result is as broad as it is long. The general profits are not affected a particle one way or the other. No money passes one way or the other. The earnings are neither enlarged nor diminished.

This is undoubtedly the reason why the defendant's expert accountants did not carry interest on the capital into the overhead charges in diminution of the profits, because it would not be a legitimate charge for that purpose, and would not state the truth as a matter of accounting. No matter how the figures should be juggled, the profits still remain with the concern unaffected, undiminished and unimpaired.

Interest on actual borrowed money is an actual cash expense and must be allowed as a matter of course. The interest on the capital of the concern invested in its business is not a cash expense. It is represented by the production and to carry out the fiction of charging interest

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on the capital as an outgo, it must be charged against the cost of production which will be diminished by just so much. If not, it diminishes the profits by just so much *on the books*, but not as an actual fact, for the profit remains the same. If the interest is added to the cost of production, it doubles the cost to that extent without any corresponding benefit. The capital is invested in the facilities for manufacture. The manufacture produces the profits. To charge the interest on the capital against the profits, and also to charge for the use of all the facilities of manufacture which represent the capital is, to that extent, to charge a double expense against a single profit. In an accounting for the profits due a complainant, such a charge amounts to a division of the profits, to that extent, between the sufferer and the wrongdoer.

I have made a careful examination of the authorities bearing on this claim for interest on the capital invested, which was not raised at the hearing before me, and I have been unable to find an instance in which the courts of last resort have allowed it to be charged in diminution of profits. Some cases have been cited to me in which the supreme court, while refusing to allow interest on the capital invested, has declined to hold that it might not be allowed in some cases. From these dicta the inference has been drawn that when it can be apportioned it should be allowed. I am unable to agree with counsel in that view.

I am of the opinion that under the decisions nothing that is not actually an expense of production can be applied in diminution of profits.

In this case the proof shows that enormous sums have been paid as interest on borrowed money, amounting, during the period embraced in this inquiry, to \$503,875.33. These borrowed moneys, on which this great sum as interest paid is deducted from the profits, become borrowed working capital in the business. The interest being actually paid is a legitimate charge against the profits. There is no proof or claim before me that the capital invested in the business upon which the defendant claims the sum of \$82,184.92 interest in diminution of the profits is borrowed capital. If such were the case and such interest had been actually paid out to the owner of the borrowed capital as expense of production, it would have been as legitimate an item of expense as is the interest on borrowed money.

Not having been so paid, and never having been charged by the defendant upon its books as an expense of production in diminution of its own profits, it is a fictitious claim as against the complainant, and cannot be allowed.

The following authority, which I did not see until after the above was written, supports the views here expressed.

"Where interest *has been paid* upon the capital invested or where it is to be paid upon borrowed capital, it should be allowed in estimating profits; but I am not aware of any rule which requires that it should be deducted where it has not been *actually paid* or incurred. * * *

"It was not shown that any interest * * * had been paid, or any indebtedness incurred therefor. The master was correct in not making any such allowance."

Herring vs. Gage, 15 Blatch, 129.

Interest on Capital as Part of Production Cost

See also the following:

"This item in the exhibit filed by the defendant's bookkeeper may have been the general cost of carrying on the entire business of the defendant, including its manufacturing departments, or it may be a mere approximation of expense of selling which would include *interest upon the general capital engaged*. If this is the fact, *this would be wrong*."

Kissinger-Ison Co. vs. Bradford B. Co., 123 Fed., 92.

California Societies Consolidated

Information has been received to the effect that the Southern California Society of Certified Public Accountants has entered the California State Society of Certified Public Accountants under a form of by-laws similar to the plan adopted in Missouri.*

Maryland Association of Certified Public Accountants

At the annual meeting of the Maryland Association of Certified Public Accountants, the following officers were elected for the ensuing year: President, Elmer L. Hatter; vice-president, Clarence R. Evans; secretary, Ernest E. Wooden; treasurer, Charles R. Ditman; auditor, Miss Florence Hooper; trustees: Elmer L. Hatter, Clarence R. Evans, Ernest E. Wooden, Chas. R. Ditman, Chas. O. Hall, Thos. L. Berry, Eugene Greenway, and Frank Blacklock.

The delegates elected to represent the society at the annual meeting of the American Association are Thos. L. Berry and Chas. O. Hall; alternates: Eugene Greenway and Elmer L. Hatter.

Montana State Society of Public Accountants

The trustees of the Montana State Society of Public Accountants at a meeting in Butte on July 10th, elected the following officers for the ensuing year: President, W. F. Battin; vice-president, George Raban; secretary and treasurer, Arthur J. Andrews.

New York Accountancy Board

The following have been named as members of the New York state board of examiners of certified public accountants: Samuel D. Patterson, for three years from Aug. 1, 1913; Charles S. McCulloh, for two years from Aug. 1, 1913; and Wm. H. Denis, for one year from Aug. 1, 1913. Messrs. Patterson and McCulloh are reappointed.

* Further mention of this important consolidation will be made in the September issue of THE JOURNAL.

California Reciprocity Clause

The legislature of California has enacted the following amendment to the C. P. A. law of that state:

AN ACT to amend an act entitled "An act to create a state board of accountancy and prescribe its duties and powers; to provide for the examination of and issuance of certificates to qualified applicants, with the designation of certified public accountant, and to provide the grade of penalty for violations of the provisions hereof," approved March 23, 1901, by adding thereto a new section to be numbered section three *a*, relative to the issuance of a certificate permitting any person who holds a valid and unrevoked certificate as a certified public accountant issued under the authority of any other state or territory of the United States, or any foreign nation, to practise as a certified public accountant in the state of California.

The people of the state of California do enact as follows:

Section 1. An act entitled "An act to create a state board of accountancy and prescribe its duties and powers; to provide for the examination of and issuance of certificates to qualified applicants, with the designation of certified public accountant; and to provide the grade of penalty for violations of the provisions hereof," approved March 23, 1901, is hereby amended by adding a new section thereto, to be numbered three *a* and to read as follows:

Section 3*a*. Any citizen of the United States, or any person who has declared his intention of becoming such citizen, being over the age of twenty-one years and of good moral character, who has complied with the rules and regulations of the board appertaining to such cases, and who holds a valid and unrevoked certificate as a certified public accountant, or the equivalent thereof, issued by or under the authority of any other state of the United States, or the District of Columbia, or any territory of the United States, or by or under the authority of a foreign nation, when the board shall be satisfied that their standards and requirements for a certificate as a certified public accountant are substantially equivalent to those established by the act of which this act is an amendment, may at the discretion of the board receive a certificate as a certified public accountant, and such person may thereafter practise as a certified public accountant and assume and use the name, title, and style of "certified public accountant" or any abbreviation or abbreviations thereof, in the state of California; *provided, however*, that such other state, territory, or nation, extends similar privileges to certified public accountants of the state of California.

Pennsylvania State Board of Examiners of Public Accountants

CIRCULAR OF INFORMATION FOR INTENDING APPLICANTS FOR CERTIFICATES AS CERTIFIED PUBLIC ACCOUNTANTS IN EFFECT FROM JUNE 1, 1913

GENERAL INFORMATION

Certificates are granted under the authority of a law enacted by the legislature and approved March 29, 1899.

The examinations are conducted by a board of five examiners, in the months of May and November of each year. Upon the recommendation of the board, certificates are issued by the governor to candidates who satisfactorily pass the examinations. Certificates may be revoked by the governor for sufficient cause upon the recommendation of the board of examiners.

Applicants must be citizens of the United States residing or having an office for the regular transaction of business in the state of Pennsylvania and must be over the age of 21 years and of good moral character.

Any person unlawfully using the title, certified public accountant or the initials C.P.A., is guilty of a misdemeanor and liable on conviction to a fine not exceeding \$500.

All applications for examination must be made on blanks provided by the board and no application will be considered unless the fee of \$25 required by law has been paid.

All applications must be filed with the board at least thirty days before the date fixed for any examination.

An average grade in each subject of at least 75 points out of a possible 100 points will be necessary to pass any examination.

In the event of an applicant failing to pass the final examination no application for a re-examination will be entertained for a period of one year. The same fee will be charged for a re-examination as for the first examination.

EXAMINATIONS

Candidates are subject to two examinations, known respectively as the first and the final.

PRELIMINARY QUALIFICATIONS

These are intended to cover the candidates' general fitness for the study of accountancy. A general education, equivalent to a public high school course of recognized high standing is required, and any candidate not presenting proper credentials in respect to his having this preliminary education must pass an examination in the subjects found in a high school curriculum.

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It is especially desirable that applicants shall be thoroughly familiar with elementary mathematics at least to the extent of a ready use of simple equations and logarithms.

Candidates should also be prepared to pass a satisfactory examination in the following subjects:

History of Accountancy

This will include the history of bookkeeping with reference to its form and use in ancient times; origin of double entry bookkeeping, and its gradual development down to the present time; the rise of accountancy, its growth and history in Scotland, England, United States and other countries, with special reference to professional legislation.

Elementary Principles of Accounts

Theory and general outline of accounts as defined in standard text books. Meaning, form and use of the trial balance. The balance sheet; its meaning and underlying principles, the more simple balance sheets as defined in the recognized text books.

A candidate satisfactorily meeting the preliminary requirements is then required to register with the board as a student in accounting, giving on forms supplied by the board a full statement of the conditions under which he proposes to study and qualify for the first examination. These proposed conditions must be satisfactory to the board.

FIRST EXAMINATION

Before taking the first examination a registered student must file with the board a statement, on the board form, setting forth complete particulars of his course of study during each of the two years last past. This statement must be satisfactory to the board. If not, the board may in its discretion postpone the taking of the examination until satisfied that the student has properly prepared himself.

The examination can be taken only after the candidate has been registered, as provided above, for not less than two years, except that in the case of an applicant who at the time of filing his application is the holder of a professional certificate of equal rank to a C.P.A. certificate of this state or who has been in practice on his own account as a public accountant for a period of not less than three years and who is over 30 years of age, the board may in its discretion waive the requirement as to registration and admit the candidate directly to the final examination.

The subjects covered by the first examination are grouped under two heads, *i. e.*, commercial law and general accounting.

COMMERCIAL LAW

The student should be well grounded in the branches of law that relate to the work usually undertaken by a public accountant, and as indicated below.

Real Estate and Personal Property

The student is expected to be familiar with the history of the growth

Pennsylvania State Board of Examiners of Public Accountants

of the existing distinction between real and personal property; to be able to assign to their proper class any specified property rights; and to have a thorough knowledge of the principal rules of law and of equity now in force in governing the acquisition, enjoyment, transfer, and devolution of property of each class as contained in the best standard text books. He must also be familiar with the statutes of Pennsylvania relating to property of either class.

Decedents' Estates

The student is expected to be familiar with the history of the law of England in relation to the devolution and administration of the estates, both real and personal, of deceased persons, and to have a thorough knowledge of the leading principles of law relating to wills and to executors and administrators as found in standard text books on these subjects. He must also carefully examine and digest the Pennsylvania statutes, together with the leading decisions thereon relating to wills, intestacy, the rights of creditors against the estates, both real and personal, of decedents, and the jurisdiction and powers of the orphans' court.

Landlord and Tenant

The student is expected to have a thorough knowledge of the leading principles of the law of landlord and tenant as contained in the standard text books, and to be familiar with the Pennsylvania statutes relating to landlord and tenant.

Contracts

Under this head are comprehended contracts of every kind, including negotiable instruments; agency; bailments; sales of personal property, and insurance. The student is expected to have a thorough knowledge of the leading principles of law as found in the standard text books and the more important cases therein cited pertaining either to contracts generally or to any of the subdivisions of the subject above enumerated. He must also be familiar with the Pennsylvania statutes relating to negotiable instruments.

Partnership

The student is expected to be familiar with the history of the law of partnership and to have a thorough knowledge of the leading principles of that law as contained in the standard text books on the subject, and the more important cases referred to therein. He must also be familiar with the statutes of Pennsylvania relating to limited partnerships; partnership associations; partnerships under the act of May 9, 1899, and the leading decisions of the courts interpreting the same.

Corporations

The student is expected to be familiar with the history of the develop-

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ment of corporations and corporation law in the United States; and to have a thorough knowledge of the several kinds of corporations, the purposes for which they may be created, and the fundamental rules of law pertaining to their organization and incorporation, their powers, their management, their dissolution, and the rights and obligations of their stockholders, or members, and their creditors, such as may be obtained from a careful study of the standard text books on private and municipal corporations and an examination of the more important cases referred to therein. The student must also be familiar with the Pennsylvania "corporation act of 1874" and the supplements thereto, and have a general knowledge of the scope of the legislation of the state in respect to corporations both domestic and foreign.

Banking

The student is expected to be familiar with the laws relating to the national banking system, the laws of Pennsylvania relating to state and savings banks, and to trust companies.

Evidence

The student is expected to have a knowledge of the principal rules of legal evidence as contained in the standard text books, and of the Pennsylvania statutes relating to the competency of witnesses and the admissibility of evidence.

Crimes

The student is expected to have such a knowledge of the law relating to frauds and other crimes arising out of business relations as can be obtained from a careful study of standard text books on the subject.

GENERAL ACCOUNTING

The applicant will be expected to have a thorough knowledge of the theory and application of accounts, the various forms of business organizations and the methods of administration under which they are conducted.

The subjects upon which the examination in general accounting is based are as follows:

Banking

- (1) National banking system.
- (2) State banks in Pennsylvania.
- (3) Savings banks and building and loan associations in Pennsylvania.
- (4) Trust companies in Pennsylvania.
- (5) Private bankers and brokers

{	stock,
{	bond,
{	note.
- (6) Foreign exchange.
- (7) Clearing houses

{	bank,
{	stock and bond.

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- (a) Accounting organization and administration.
- (b) Nature of accounts in each and the distinction between the accounts of the different classes of banking institutions.
- (c) Nature of bank audits and method of procedure in each of 1 to 6, inclusive.

Insurance

Life, fire, marine, accident,
fidelity and other forms
of insurance

Principles of insurance.
Organization of (1) mutual com-
panies, (2) stock companies.
Accounting organization and admin-
istration.
Reserves.
Income accounts.
Balance sheets.
Audits.

Manufacturing

- (1) Accounting organization and administration of factories.
- (2) Financial accounts of factories.
- (3) Manufacturing costs.
- (4) Audits.

Mining

- (1) Accounting organization and administration of a mining company.
- (2) Financial accounts of mining companies.
- (3) Mining costs.
- (4) Audits.

Trading

- (1) Accounting organization and administrations of

(a) Wholesale {manufacturers,
distributers.

(b) Retail.

- (2) Financial accounts of selling organizations.
- (3) Stock and cost records.
- (4) Audits.

Transportation

- (1) Railroads
- (2) Street railways
- (3) Water transportation

Accounting organization and adminis-
tration.
Capital accounts.
Revenue and operating accounts.
Balance sheets.
Audits.

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Public Utilities

- | | | |
|-----------------------------|---|---|
| (1) Gas | { | Accounting organization and administration. |
| (2) Electric light | | Capital accounts. |
| (3) Telephone and telegraph | | Revenue and operating accounts. |
| | | Balance sheets. |
| | | Audits. |

Governmental

- (1) The distinction between public and private accounts.
- (2) Revenue and expenditure.
- (3) Appropriations.
- (4) Funds, special and general.
- (5) Balance sheets.
- (6) Audits.

Legal

- (1) Decedents' estates.
- (2) Bankrupt estates.

Including the requirements as to the form and manner of stating accounts for the orphans' and other courts and the application of accounting principles in relation to these special requirements.

FINAL EXAMINATION

A candidate who has successfully passed the first examination may be admitted to the final examination one year after passing the first examination, and not more than three years thereafter, provided that such candidate shall have had at least two years' experience in the office of a certified public accountant or in the office of a public accountant or three years in actual practice on his own account.

The final examination may be either oral or written, and shall be designed to test the applicant's training in the discharge of the duties of a public accountant.

Students registered with the board before June 1, 1913, and who shall have complied with the rules prevailing prior thereto shall be admitted to the final examination without taking the first examination.

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Anatomy of a Railroad Report	Woodlock
Auditing, Theory and Practice	Montgomery
Auditors, their Duties and Responsibilities	Pixley
Bookkeeping for Accountant Students	Dicksee
Business Education and Accountancy	Haskins
Corporate Organization	Conyngton
Corporate Finance and Accounting	Bentley
Depreciation and Wasting Assets	Leake
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Depreciation, Reserve and Reserve Funds	Dicksee
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Correspondence

Where Charity Begins

New York, July 12th, 1913.

Editor, The Journal of Accountancy:

Sir: I believe it may be of some little interest to you to receive the enclosed copy of a letter dated June 17th, 1913. The original letter is written on plain paper, the signature being stamped. The last paragraph in the letter is particularly worthy of note.

Yours faithfully,

ACCOUNTANT.

(Enclosure)

June 17th, 1913.

Dear Sir: By direction of the board of commissioners of the city of , proposals are hereby invited for auditing the accounts of the following departments for the fiscal year ending June 30th, 1913: City clerk, city treasurer, police justice, collector of taxes, board of health, district court, building inspector.

Audit must be made during business hours, and completed on or before September 1st, 1913.

The successful bidder will be required to furnish duplicate leather bound copies of audit and make up tax duplicates for fiscal year ended June 30th, 1913.

Proposals must be sealed and addressed to the director of revenue and finance in care of the comptroller.

The board of commissioners reserve the right to reject any or all bids and all bids must be submitted on or before Friday, June 27th, 1913.

Should you get the award, please take care of me.

Yours truly,

(Stamped signature)

New York State Society of Certified Public Accountants

At the regular monthly meeting of the New York State Society of Certified Public Accountants, June 9, Mr. Richardson, secretary of the American Association of Public Accountants, delivered an address dealing with the work of the association. President Suffern appointed the following committees:

STANDING COMMITTEES

Admission Committee: W. H. Dennis, W. S. Pangborn, A. G. Potter.

Auditing Committee: C. E. W. Hellerson, J. T. Cavanagh, A. S. Fedde.

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Legislation Committee: Perley Morse, H. R. M. Cook, J. H. Schnackenberg.

Complaints Committee: F. H. Hurdman, C. P. Child, J. B. Niven.

Library Committee: Arthur Wilmot, P. A. Eckes, R. C. Hotson.

House Committee: W. H. West, S. D. Leidesdorf, W. S. Whittlesey.

Committee on Publicity: W. F. Weiss, E. C. Gough, P. J. Warner.

Committee on Revision of Constitution and By-Laws: Duncan McInnes, H. B. Cook, H. F. Searle.

SPECIAL COMMITTEES

Lectures and Entertainments: J. L. Nicholson, F. G. Colley, P.-J. Esquerré, C. C. Goldsborough, J. J. Kline.

Professional Ethics: R. P. Tinsley, A. B. Sinclair, A. H. Wicks.

Violation of C. P. A. Laws: F. R. Clair, J. R. Loomis, C. S. McCulloh.

Furtherance of the Objects of the Society: Arthur Wolff, L. S. Hubbard, J. B. Payne, E. C. Patterson, J. R. Sparrow.

Committee on Relations with Preparatory Institutions: Charles Hecht, E. A. Ashdown, L. Greendlinger, H. D. Greeley, A. B. Sinclair.

There will be no further meetings of the society until October.

Wisconsin State Board of Accountancy

The following have been appointed members of the first Wisconsin state board of accountancy:

For three years, Stephen W. Gilman, University of Wisconsin.

For two years, Henry Schneider, Milwaukee.

For one year, J. B. Tanner, Wisconsin State Board of Public Affairs.

Edwards, Ronald & Company, chartered accountants of Canada, announce that the practice heretofore carried on under their name will in future be continued under the firm name of Ronald, Griggs & Company.

Black & Company (Wilmer Black, C.P.A., Md.) announce their removal to suite 1207 Garrett Building, Baltimore, Maryland.

Chas. W. Todd, C.P.A. (Pa.), announces the removal of his offices from 1237-38 Land Title Building to 703-704 Real Estate Trust Building, Philadelphia.

Missouri Society of Certified Public Accountants

At the annual meeting of the Missouri Society of Certified Public Accountants, held at Kansas City, July 25, 1913, the following officers and delegates were elected for the ensuing year:

President, Stanley Young, Kansas City; first vice-president, Arthur M. Trader, St. Louis; second vice-president, Francis A. Wright, Jr., Kansas City; secretary, Bertram D. Kribben, St. Louis; treasurer, J. D. M. Crockett, Kansas City; delegates to Boston convention, B. D. Kribben, John A. Will and Stanley Young; alternates, Leslie N. Simson, S. H. Rodway and another to be appointed by Mr. Young.

The proposition to increase the dues of the American Association was endorsed and approved, and the directors were authorized to pay the same if the increase be ordered by the association.

Touche, Niven & Company announce the opening of an office at 215-217 McKnight Building, Minneapolis, Minnesota, under the management of Edgar C. Salvesen, certified public accountant of Minnesota and a member of the Institute of Chartered Accountants and Actuaries of Glasgow.

William Whitfield & Company, certified public accountants of Oregon, announce the change of their firm name to Whitfield, Whitcomb & Company.

Alex. C. Rae, C.P.A. (Oregon), announces that he has transferred his offices to 700-702 Yeon Building, Portland, Oregon.

Book Department

PRINCIPLES OF DOUBLE-ENTRY BOOKKEEPING. BY CHARLES M. VAN CLEVE. Published by the Author, New York. 1913. xi + 210 pages. \$1.50.

Since the days of EDWARD JONES, who wrote nearly eighty years ago, there have been scarcely any American works distinctly dealing with the theory of bookkeeping. Many have indeed borne titles indicating a theoretical treatment, but in almost every case the title was a misnomer and the work proved to be nothing but a manual of instruction. SPRAGUE'S PHILOSOPHY OF ACCOUNTS is practically the only American work on the subject, and even half of that scant volume is given up to purely practical suggestions. The appearance of MR. VAN CLEVE'S work is, therefore, an interesting occurrence, for it is thoroughly theoretical in its character.

The author is not oblivious of the fact that he is, to some extent, treading in unusual fields, for he states in the preface: "I have never seen a text book which gave any indication whatever that its author had even the remotest conception of the principles upon which the art is based"; and he closes the book with the statement: "If anyone should ask how much of the theory I claim is new and original I would say: All of it. I claim that this treatise presents the true and complete explanation of the art of accounting by the double-entry method; and moreover, I claim that no other writer has ever advanced one single correct idea bearing upon the theory of double-entry bookkeeping—not one."

So far as the first statement is concerned there is much to justify the author's claim, and he has, indeed, done good service in emphasizing the ridiculousness of the explanation of bookkeeping generally found in American texts, that is, that the accounts represent debts due to and by a personified business, making assets and liabilities necessarily always equal, since the proprietorship accounts are included among the liabilities. With refreshing vigor does he attack this theory, stating:

"The text books which teach such a theory (and they are the only text books of accounting which teach any theory at all) are a disgrace to an occupation that pretends to be based upon reason. Nowhere else in the literature of the arts and sciences is to be found such a jumble of muddled thinking, false reasoning, and slipshod logic. * * * I know of no other branch of useful knowledge the study of which is incompatible with mental honesty; while in double entry bookkeeping, as it is commonly taught, the pupil is not even prepared to begin his work until he professes a willingness to accept as true a doctrine which he knows to be false. I say he knows it to be false, because no person of normal mind believes, or ever did believe that assets and liabilities are always equal, and no person of normal mind is satisfied or ever was satisfied with a line of reasoning which leads to the conclusion that net asset is a liability and net liability an asset" (p. 208).

The author, of course, recognizes that this doctrine has before been

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criticized. Doubtless he, too, remembers how the phrase "Assets do not equal liabilities" was even made the basis of a rather catchy advertisement appearing for a while in this JOURNAL. But the theory seems hard to kill, and the author is indeed to be thanked for the vigorous, if perhaps somewhat quixotic, manner in which he brandishes his arms and rushes to the attack.

But while others have condemned the theory mentioned above, MR. VAN CLEVE does not admit the validity of the counter theory most frequently put forward. This is the so-called "materialistic" theory, so well set forth by SPRAGUE. The theory which the author himself propounds, so far as it can be expressed briefly, consists of two parts. First, every entry implies a transaction with the proprietor. Thus, the purchase of merchandise for cash, while ordinarily expressed in the journal entry, merchandise, Dr., to cash, Cr., is in reality a double transaction in two journal entries: merchandise, Dr., to proprietor, Cr., in the first place, and in the second, proprietor, Dr., to cash, Cr. Second: the proprietor's account represents, not an indebtedness between the proprietor and a personified business, but indebtedness between the proprietor and "the outside parties collectively."

It may be interesting to examine the author's claim to novelty. Undoubtedly the theory which he propounds is original, in the sense that it is one which he has himself worked out and has not copied from another. But that does not necessarily mean that it is a new one to the accounting world. The theory that a double transaction is involved in each journal entry is clearly propounded in *HARDCASTLE'S Accounts of Executors and Trustees* (p. 9). But *HARDCASTLE* goes further and claims that this theory is implied in the first published work on bookkeeping, and that the double line, used by *PACIOLO* and his successors to separate the debit and credit items in the journal entry, stood for the double reference to the proprietor. It is not necessary here to pass upon the correctness of this interpretation of *PACIOLO*; it suffices to notice that the theory of the omitted proprietor was expounded at least by *HARDCASTLE*. It seems even harder to justify the author's claim when it is further noted that *SPRAGUE'S Philosophy*—a book which the author does not mention, but with which he seems to be familiar—distinctly gives the formula (p. 23):

Mdse./Proprietor

Proprietor/Cash

But accounting practice has gone farther. *VAN CLEVE* says that the transaction involves two entries with the proprietor, which cancel and are omitted. But the system of bookkeeping known as logismography not only recognizes the two transactions with the proprietor, but demands that both shall actually be entered in full. As this system goes back definitely to the early seventies, and as its supporters claim, as is brought out by *BONALUMI*, that the basis of the theory can be traced back in an almost unbroken line, through the entire history of Italian bookkeeping, it seems to savor somewhat of exaggeration to speak of *VAN CLEVE'S* rather mild presentation as being new as well as original.

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Nor does the second part of VAN CLEVE's theory, namely, that the proprietor's account indicates a debt relationship "with the outside parties collectively" prove to be entirely new. SPRAGUE (Sec. 82) explains the capital account in almost the same words, interpreting it as being, "Jones, in account with the universe."

The "materialistic" theory, to which reference was made above, does away with any idea of personification and interprets debit and credit merely as an easy means of indicating the right and left columns of an account. VAN CLEVE objects strongly to this, mainly on the ground that unless an account is personified the terms debit and credit are words without sense. "If cash means cash, and merchandise means merchandise, then to speak of debiting and crediting them is the height of absurdity," he says in one place. Again he states that thus used "the words debtor and creditor have no meaning at all, that they are merely arbitrary signs to distinguish between the left-hand side and the right-hand side. This is equivalent to declaring that the entries themselves mean nothing."

It is almost inconceivable that one should claim that because a term is not used in its etymological sense it is therefore meaningless. A furlong surely has a definite meaning even though it has now nothing to do with the act of plowing. To say that accounts mean nothing because debit and credit are not used literally is strange doctrine to those who think that ledger account and balance sheet have a very definite value in giving information regarding business conditions. The author himself goes to the limit in using terms in other than their literal sense. He distinctly states that every ledger heading means something different from what it says, that cash does not mean cash, that merchandise does not mean merchandise, that interest does not mean interest. Is it not, then, a little ungenerous to find fault with those who use debit and credit, not without a meaning, but with a meaning different from the literal one? VAN CLEVE allows every bookkeeping term, with the exception of debit and credit to be used in a derived sense, but heaps obloquy on anyone venturing to use those two sacrosanct terms except as indicating a debt.

A final, more vital criticism may be made of the author's theory in that he radically distinguishes between the proprietor's capital account and the accounts showing profit and loss. He accordingly groups accounts showing, say expense, with those showing cash, rather than with capital. The thought of combining into one account cash and expense would, of course, be absurd. But at the end of each year expense is regularly combined with the proprietor's capital, showing the two to be of similar nature. Yet the author separates them in his scheme of classification. Surplus he does group with capital, but the accounts showing the items of gain are kept in an entirely different category.

All who have dabbled in the theory of accounts will be free to admit the absurdity of the personification theory, and the unsatisfactoriness of the materialistic theory. All such will find much to approve of in the critical part of MR. VAN CLEVE's work. Perhaps some would go further even than he goes and say that accounting theory continues to offer an almost virgin field.

HENRY RAND HATFIELD.

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THE INCORPORATION AND ORGANIZATION OF CORPORATIONS. BY THOMAS GOLD FROST, LL.D., PH.D. *Little, Brown & Co.*, Boston, 1913. Fourth Edition. 926 pages. \$6.

The title of Mr. Frost's work is somewhat misleading. As the author states in his preface, the book might "with no inconsiderable degree of fitness have been entitled 'A Treatise on Comparative Incorporation Law in the Several Commonwealths of the United States.'" The title as suggested gives a much better idea of the intent of the book.

The work is divided into three parts, varying materially in character. Part I is a very excellent discussion of the details of the incorporation and organization of corporations, with special attention to the differences existing in the various states, including the drafting and procuring of charter, organization after incorporation, issuance and payment of capital stock, with a somewhat extended discussion of legislative control over both domestic and foreign corporations.

Part II, which constitutes the largest and most important portion of the work, is a digest of the incorporation acts of the various states. The states are presented in alphabetical order and the various subjects are treated under uniform headings for each state—the usual and very convenient arrangement for works of this kind.

Part III is devoted to a presentation of forms and precedents, covering the forms for each state usually employed in the incorporation and organization of corporations, and also giving for the various states very excellent tables of the organization tax, the annual franchise tax and the taxes imposed upon foreign corporations.

As stated, the larger portion of the work is devoted to a digest of the incorporation laws of the various states. Since OVERLAND's very excellent *Classified Corporation Laws* has gone out of print there are only two publications of any importance in which such a presentation is found, i. e., FROST and the *Corporation Legal Manual*. These two works differ to some extent in their arrangement of subjects but differ mainly in the fullness with which these subjects are presented. In FROST the presentation is very clear and concise, the essential requirements or facts being stated as briefly as clearness will permit. In the *Corporation Legal Manual*, on the other hand, the statute law under each subject heading is presented in full.

For quick reference the digest form is by far the more convenient. For general legal use it is advantageous to have the complete statute, from which the attorney can himself deduce the law. Discrimination between the two books will therefore be made on the basis of the use for which they are intended. For the use of the layman, and for the attorney who merely wishes to ascertain requirements of procedure or matters of unquestioned fact, the present volume, stating these facts briefly and clearly, would undoubtedly be preferable to the larger volume in which they are obscured by the complicated and difficult verbiage of the many statutes in which they are found.

The present volume contains full references to the statutes from which

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its statements of the law are obtained. It also contains a limited number of citations in support of statements which are somewhat obscure in the statutes or which have been established by precedent.

THOMAS CONYNGTON.

RAILROAD FINANCE. By CLEVELAND and POWELL. *D. Appleton & Co.* New York: 1913. 463 + xv pages. \$2.50.

The field of American railroad finance is covered in this study. Written in attractive and readable style, it marshals a great array of facts to sustain and illustrate the views and statements of the authors. In general the spirit of the work is conservative, and the tendency is rather to state facts, than to advocate theories. When reforms are suggested, they are usually sustained with quotations from the advocates of such reforms, rather than advocated by the authors of the book.

After an introductory chapter dealing with the "economic basis of railroad investment," which consists largely of a description of the causes of railroad development in the United States, and of the evolutionary process which has given rise to the present supremacy of the railroad over other forms of inland transportation, the authors launch into a detailed description of the many phases of railroading from the financial and accounting standpoint. The building of a railroad is discussed under the various heads of promotion and underwriting, capitalization, and financing of construction and equipment. The railroad as a going concern is considered under organization for financial management, protection of the corporate estate, additions and betterments, operation, management of the surplus, and accounts and statistics. Lastly, in five chapters, insolvency and reorganization are explained.

Most of the statements of fact are properly supported by references and bibliographies.

Some assertions will inevitably creep into a work of this nature which may not be of universal application. Thus on page 54 the following occurs: "Another factor which has contributed to lower capital cost in the United States has been the power given to railroad corporations to obtain rights of way by eminent domain, whereas in England they were compelled to obtain this land by private bargaining."

Compare with this the following quotation from the supplement to the annual report of the Railroad and Warehouse Commission of Minnesota, for the year ended November 30, 1908 (p. 15):

"The figures are of interest in connection with this subject, and show that, of 35 per cent of the right of way acquired by condemnation proceedings, the company paid about $4\frac{1}{2}$ times the average true value of the lands, and of the 65 per cent purchased by agreement the price paid was but 1.7 times the average true value of the lands. * * * From the facts gathered in this and other instances it may be accepted as a general rule that where right of way is obtained by condemnation, the price paid per acre is usually more than that of lands purchased by agreement."

One of the most valuable chapters is that which deals with the pro-

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tection of the corporate estate, and an interesting comparison of American and British procedure is made. The chapter on capitalization defines capital as resources "intended for continuing, productive use." The reader may judge for himself whether the writers follow their own definition in the chapter on over capitalization.

The book is worthy of a careful perusal.

EARL A. SALIERS.

ELEMENTS OF ACCOUNTING. By JOSEPH J. KLEIN. *D. Appleton & Co.*, New York. 1913. 422 + xiv pages. \$1.50.

This book occupies a place midway between the many elementary treatises, such as ROWE'S *Bookkeeping and Accountancy* on the one hand, and the more advanced works, of which HATFIELD'S *Modern Accounting* is typical.

The first sixty pages discuss bookkeeping and accounting in their simpler aspects, and the two are interestingly compared. Following chapters treat of single versus double entry, partnership and corporation accounting, balance sheets, trading and profit and loss statements, depreciation, reserves, accounts of non-trading concerns, statements of affairs and deficiency accounts, realization and liquidation, cost accounting and auditing.

The volume is a valuable contribution to accounting literature because of the clearness and simplicity with which the various subjects are presented. It is not the author's purpose to write an exhaustive treatise, but rather to introduce the student to the subject and enable him to proceed to more difficult studies. Nevertheless, sufficient progress is made in the complexities of accounting to make the book of interest to advanced students and of assistance to those preparing for examinations.

The chapters on cost accounting and auditing are perhaps least satisfactory, since fuller treatises on those topics are obtainable.

Each chapter contains suitable exercises and a brief but appropriate bibliography. Supplementary exercises and tests are given in the appendix.

EARL A. SALIERS.

ACCOUNTANTS' AND BOOKKEEPERS' VADE MECUM. By G. E. STUART WHATLEY, 2nd edition by ROGER N. CARTER. *Gee & Co.*, London. 1913. 224 pp. \$2.50.

There is little difference between this and the first edition, as stated in the preface. The first edition was the result of MR. WHATLEY'S finding a scarcity of material on several subjects when he was preparing for the final examination of the Institute of Chartered Accountants. In the third edition, MR. CARTER has only varied the original text to conform to present legislation and practice. The work is valuable from the student's viewpoint for the subjects discussed, although MR. CARTER refers to other standard text books for "fuller information."

The solutions of the problems all conform to the English law. The second part of chapter 4, dealing with repairs, renewals and depreciation,

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is applicable, as it stands, to English practice only. Of course, the underlying principles of capital and revenue expenditure apply with equal force to American practice. The chapter on partnership accounts is based on the English partnership acts of 1890 and 1897. Similarly the detail of the chapter on joint stock companies is based on English procedure. This chapter is given over entirely to a discussion of the stock books.

The author illustrates the chapter on tabular bookkeeping by the use of columnar books and forms designed for the use of hotels and theatres.

The active practitioner probably will find the book of little benefit, but for the student of accountancy it serves as an excellent reference book, particularly upon the subjects of capital and revenue, statement of affairs and deficiency accounts, depreciation, reserve and sinking funds. Every subject discussed throughout the book is illustrated by typical problems and accounts, which is unquestionably one of the best methods of impressing principles upon the student mind.

F. H. ELWELL.

HOW TO READ THE BALANCE SHEET OF A COMMERCIAL CONCERN. BY FRANCIS W. PIXLEY, F.C.A. *Gee & Co., London.* 3rd edition. 1913. 64 pages. 50c.

The third edition of this book, the outgrowth of a paper read by the author at a meeting of the Glasgow Chartered Accountants' Students' Society in 1906, closely resembles the previous editions. The book will be little used by practising accountants; in fact the author states that the work is "primarily intended for the inexperienced in accounts" and that the two classes of persons for whom he writes are stockholders and intending investors. However, some practitioners might more closely approach the viewpoint of their clients in the construction of a balance sheet were they to read this book.

According to the English companies act, the assets are placed on the right side of the balance sheet; the capital and liabilities on the left. MR. PIXLEY repeats his recommendations of former editions for the abolition of the expression "assets side of the balance sheet" in favor of the expression "credit side of the balance sheet."

In the detailed discussion of the balance sheet, the author first considers the trade creditors of the business, and follows with a discussion of capital—fixed and working. For purposes of the work at hand, he divides the items of the credit (asset) side of the balance sheet into five groups—cash items, those which can be realized at comparatively short notice, those which will take a certain definite time to realize, those which can be realized so long as the business is a going concern, and unrealizable items.

A serious handicap to the book as a reference for the student of accountancy is that it is neither divided into chapters nor indexed.

F. H. ELWELL.

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No. 3

Methods of Writing off Discount on Bonds

BY GEORGE R. WEBSTER

The ordinary expression in connection with discount on bonds is that the discount should be written off over the life of the bonds. This is usually taken to mean that a charge should be made each year, ascertained by dividing the number of years which the bonds have to run into the amount of the discount. The object of the present paper is to show that in many cases this treatment is quite erroneous.

The error is most marked in the case of bond issues where there is a sinking fund which will redeem the bonds in a comparatively short time, and has the effect of understating the amount to be charged off during the earlier years of the issue.

For example, if \$1,000,000 par value 6% bonds be issued at 85 and there is a sinking fund of 10% per annum and the expenses in connection with the bond issue amount to \$4,220, it means (without taking into account the fact that interest will probably be paid semi-annually) that the true rate of interest paid by the company is 10%. The expenses of the bond issue are taken at \$4,220 in order to simplify the calculations as this makes the effective rate of interest 10% exactly. The net cash received by the company on this transaction would then be \$845,780, making the discount and expenses \$154,220. On the basis of writing the discount off over the life of the bonds the annual charge to profit and loss would be \$15,422.

Based, however, on the effective rate of interest paid, the charge for discount and expenses for the first year would be \$24,578.00, obtained as follows:

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10% on \$845,780.00	\$84,578.00
Less—interest paid—6% on \$1,000,000	60,000.00
	\$24,578.00

The charge for discount and expenses would decrease each year, the charge for the last year being only \$3,636.00.

In the above example assumptions are made which result in an effective rate of 10%. To find the effective rate in any particular case, where it does not come to a rate of interest shown in interest tables, it is necessary to employ some method of interpolation between two rates found in interest tables. The method of doing this will be found in any book on actuarial science and need not be described here. The calculation is not, however, always a simple one.

A third method which does not require this calculation and which is sometimes used is to charge off the discount over the various years in proportion to the par value of the bonds outstanding during each year. Taking the example above the bonds outstanding during each year would be as follows:

First year	\$1,000,000
Second year	900,000
Third year	800,000
Fourth year	700,000
Fifth year	600,000
Sixth year	500,000
Seventh year	400,000
Eighth year	300,000
Ninth year	200,000
Tenth year	100,000
	\$5,500,000

The proportion of bond discount and expenses chargeable against the various years would, therefore, be ten fifty-fifths the first year, nine fifty-fifths the second year, etc.

The following table shows the charges each year according to the different methods:

	On basis of years bonds run	On basis of true interest paid	On basis of bonds out- standing dur- ing each year
First year	\$15,422	\$24,578	\$28,040
Second year	15,422	23,036	25,236
Third year	15,422	21,340	22,432
Fourth year	15,422	19,474	19,628
Fifth year	15,422	17,422	16,824

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Sixth year	15,422	15,164	14,020
Seventh year	15,422	12,680	11,216
Eighth year	15,422	9,948	8,412
Ninth year	15,422	6,942	5,608
Tenth year	15,422	3,636	2,804
	<u>\$154,220</u>	<u>\$154,220</u>	<u>\$154,220</u>

It will be seen from the above that on the basis of the bonds outstanding during each year the charges for the earlier years are slightly greater than those under the true interest method but that both methods require a charge greatly in excess of that based on the life of the bonds.

It may be pointed out that on the basis of the years the bonds run the charges for interest and discount in the tenth year would be

6% on \$100,000.00	\$ 6,000.00
One tenth of discount	15,422.00
	<u>\$21,422.00</u>

or 21.422% on the bonds outstanding during the year.

As already stated the difference is greatest where the bonds have a sinking fund provision and an example might now be taken where there is no sinking fund, for example, \$1,000,000.00 par value 5% 10-year bonds sold at 90.

Methods 1 and 3 are the same in this case and call for a yearly charge of \$10,000.00.

Assuming for convenience that interest is paid yearly it will be found that the effective rate of interest is 6.3835%, and the proper charge for discount would vary from \$7,451 the first year to \$13,004 the last year, the following being the complete comparison:

	On basis of years bonds run	On basis of true interest paid
First year	\$10,000.00	\$ 7,451.00
Second year	10,000.00	7,927.00
Third year	10,000.00	8,433.00
Fourth year	10,000.00	8,971.00
Fifth year	10,000.00	9,544.00
Sixth year	10,000.00	10,153.00
Seventh year	10,000.00	10,801.00
Eighth year	10,000.00	11,491.00
Ninth year	10,000.00	12,225.00
Tenth year	10,000.00	13,004.00
	<u>\$100,000.00</u>	<u>\$100,000.00</u>

From the above table it will be seen that on the basis of the

years the bonds run the charges in the earlier years are greater than on the basis of the true interest paid.

From these two tables, therefore, it would appear that where there is a sinking fund provision the most conservative method of treatment would be to write off the discount on the basis of the bonds outstanding during each year, and where there is no sinking fund on the basis of the years the bonds run.

A conservative accounting principle might be adopted for the extinguishment of assets such as discount on bonds that where a simple calculation results in the writing off of a larger sum in the earlier years it should be preferred to a method involving a precise and possibly intricate calculation which would call for a smaller yearly charge in the earlier years.

In the case of the sinking fund bond issue which we have taken as an example it has been assumed that the bonds will be redeemed at par. If the sinking fund calls not for the redemption of 10% of the outstanding bonds at par but for a payment to the trustee of 10% of the par value of the bonds outstanding, such amount to be applied in redemption of as many bonds as could be purchased by the amount, further interesting questions arise in connection with the treatment of the differences between the par value of the bonds and the price paid for same by the trustee, as it would appear to be reasonable that if the bonds were issued originally at 85 that they could at the end of the first year be purchased in the open market at a price below par. In fact in the case stated the value of the bond at the end of each year, assuming a constant yield of 10%, would at the end of the first year be 85.6%, at the end of the second year 86.7%, increasing gradually to par at the end of the last year.

In many bond issues there is also the further difficulty that the amount of the sinking fund is not definitely known, but is dependent on the number of tons of coal or ore mined, or timber cut, etc., and in such cases the requirements based on bonds outstanding at the end of each year would probably require to be recalculated each year on the basis of actual experience.

It may be interesting to note the rules laid down in some of the books on accounting and the regulations made by the interstate commerce commission and public service commissions:

DICKSEE'S *Auditing* refers to the matter as follows:

"Write off discount in instalments during the life of the bonds so that

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the aggregate of the discount and the nominal interest charged to revenue account is the actual amount of interest paid on the proceeds of the bonds."

MONTGOMERY'S *Auditing, Theory and Practice* contains the following:

"Likewise when bonds are sold at a discount it is because the rate of interest the bonds bear is less than the effective rate at which the corporation's credit is rated. For instance, if five per cent ten-year bonds are sold at 90, it means that the corporation's borrowing strength is rated at about six per cent, and in order to reflect the actual rate each year as interest is paid, it will be necessary to carry the discount as a deferred charge among the assets and write off to interest account one per cent annually. This, added to the amount paid in cash, will adjust the interest account to the proper cost."

DICKSEE's would seem to call for the true interest method, and would apply to any form of bond, while MONTGOMERY's would seem to suggest that the discount should be written off on the basis of the life of the bonds, although this may be considered as applying only to the example given.

The interstate commerce commission regulation is as follows:

"Income account—Amortization of discount on funded debt should be charged during each fiscal period with such proportion of the unextinguished discount and expense on funded debt obligations as may be applicable to that period. This proportion should be determined according to a rule, the uniform application of which throughout the interval between the date of sale and the date of maturity will extinguish the discount and expense on funded debt.

"In order that the discount and expense on funded debt may be extinguished sooner, the company may, at its option, charge to account PL 11, 'debt discount extinguished through surplus' all or any portion of the discount and expense on funded debt remaining at any time unextinguished * * *

This same regulation has been adopted by the railroad commission of the state of California and by the public service commission of the second district of the state of New York and practically the same regulation has been adopted by the public service commission of Maryland.

The regulations of the public service commission for the first district of the state of New York are

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"to charge off a proportion of such discount and expense based upon the life of the security to maturity."

From the above it would appear that the interstate commerce commission and the public service commissions which have adopted the interstate commerce commission's ruling would probably not object to any reasonable scheme which would take care of discount in a uniform way during the life of the bonds.

The regulation of the public service commission of the first district of the state of New York might be interpreted as allowing in the case of sinking fund bonds the adoption of either the first or third methods as herein described.

None of these regulations is very specific but this is probably accounted for by the fact that until a comparatively recent date it was customary to charge discount on at least an original issue of bonds to capital and it is, therefore, probable that future regulations will develop the theory in more detail and provide specifically for the case of sinking fund bonds.

It may be thought that the point made here is too technical but it would seem that frequently borrowers do not realize the way in which discount works and the consequent effect it has on the actual price paid—probably on account of their calculating the interest and discount on the par value of their obligation and not on the actual cash received by them. This is illustrated in the example taken by Mr. MONTGOMERY where to a casual reader the effect of the discount might be considered as equal to an addition of 1% per annum on the money received, whereas as has been previously seen it is equivalent to an addition of 1.3835%.

A Problem in the Distribution of Expense Burden

(A Paper for Accounting Students)

BY H. C. BENTLEY, C.P.A.

(Second Article)

It is assumed that the fictitious company named in this problem conducts an efficient set of accounting records; that a perpetual inventory is maintained with all raw materials, semi-raw materials, finished parts, finished goods, fuel, oil, waste, repair parts, etc.; that a cost ledger is conducted in which is kept an account with each production order and standing shop order; that each production order and standing shop order is charged with the cost of distributable services bought and materials and supplies used during a month; that monthly profits are determined; and that detailed subsidiary records are kept with each machine, showing the actual cost of repairs and renewals, and such other data in connection with this class of fixed assets as may be desired.

As stated heretofore, one of the first steps to be taken in connection with the installation of MR. CHURCH's method is to prepare schedules showing the manufacturing expenses for a year in advance, always bearing in mind that the variable expenses applicable to production must be estimated, and that all the elements of expense burden must finally be distributed in the cost ledger to the proper production orders. If the aggregate number of hours worked by a production center (say 190) is less than its estimated number of normal working hours per month (say 225) then the aggregate amount charged to production orders to cover the service rendered by that center during the month will be less than the estimated manufacturing expenses which apply to the production center in question. This feature is more fully dealt with hereafter.

Schedules 1 to 14,* inclusive, exhibit the fixed and estimated manufacturing expenses of the A. H. C. Manufacturing Company for a year. A ledger account corresponding with each

* For schedules see preceding number of THE JOURNAL OF ACCOUNTANCY.

schedule is kept. Schedule No. 14 is a summary of all elements of expense burden as detailed in the preceding schedules. The total debits to estimated manufacturing expenses account for any given month represent that part of the fixed and estimated annual manufacturing expenses which applies to the month in question.

Maintenance of land account is debited at the close of each month with its proper proportion of the estimated annual taxes, expenses of upkeep of grounds, and interest on the capital investment. It is assumed that 5 per cent per annum is a fair charge to make for the use of capital invested, notwithstanding that there is a $5\frac{1}{2}$ per cent mortgage outstanding covering the land and buildings. The three debits referred to are offset by credits to accrued taxes, reserve for upkeep of grounds, and interest on capital. When the taxes are finally paid it may be found that the taxes as estimated do not agree with the taxes as paid.

The difference may be adjusted as between the manufacturing and non-manufacturing departments, and the proportion which applies to the former may be transferred to adjustment of manufacturing expenses account. The actual amount expended for upkeep of grounds during a year will not exactly agree with the sum total of the twelve monthly credits to the reserve for upkeep of grounds account, to which will be debited the actual expenditures as incurred. The difference should be disposed of after the manner explained above in connection with taxes. Interest on capital account has no current debits. At the close of each month the land maintenance charges are distributed among the several building maintenance accounts, thus causing the maintenance of land account to balance.

Maintenance of office building account is debited at the close of each month with the proportion of land maintenance charges, taxes, insurance, repairs, depreciation and interest, which applies to that month. The six debits are offset by credits to maintenance of land, accrued taxes, insurance premiums prepaid, reserve for repairs to office building, reserve for depreciation of office building, and interest on capital. The first credit forms part of the total credit to maintenance of land account to which reference has been made. As heretofore stated, any differences between the actual land expenses and the estimated land expenses may be adjusted

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annually. The credits to accrued taxes account and to reserve for repairs of office building account are estimated figures. If the amount paid for taxes and the amount expended for repairs during a year do not agree with the sum of the twelve credits to these two accounts the differences must be disposed of. It will be impossible to determine whether or not the provision for depreciation of wasting fixed assets is correct as at the close of each year. If a proper subsidiary record is kept with each item of wasting fixed assets it will be a simple matter to adjust the unaccrued depreciation on all items sold, discarded or otherwise disposed of, and also to cease reserving for depreciation as soon as the estimated life of a given unit has expired. Adjustments of unaccrued depreciation reserves and the continuation of provision for depreciation beyond the estimated life of a unit should be handled through adjustment of depreciation reserve account, which should be closed into surplus. The credits to interest on capital account are constant, and represent the amount of interest to which the business is considered to be entitled, for the use of the capital invested in fixed assets. The sum total of the monthly debits to maintenance of office building account is distributed, by means of a monthly journal, according to the distribution shown under schedule No. 2, thus causing the account to balance. This monthly distribution is based upon the number of square yards of floor space in the office building utilized by the four departments specified; and in allotting floor space it may be found necessary to exercise considerable arbitrary judgment as to the exact line of demarcation between departments.

The charges of the three remaining building maintenance accounts, together with their offsetting credits, are identical in nature with those of the maintenance of office building account, and therefore do not require any further explanations. These accounts are closed by means of monthly journal entries in accordance with the distribution specified under the respective schedules.

It is assumed that the warehouse building is used for receiving and storing all raw materials and supplies purchased in large quantities; and that all raw materials and supplies are taken into the stock record at invoice prices. Thus all expenses of buying, hauling and handling inward, receiving, storekeeping and

issuing of stores are charged to buying, receiving, warehousing and storing account. In this way the raw materials and supplies are carried on the books at invoice prices; and all acquisition and carrying costs are charged as operating expenses in the month in which they are incurred, regardless of the fact that a part of such expenses applies to the cost of materials and supplies on hand.

Maintenance of power plant building includes maintenance of the coal shed.

Power and heat account, corresponding to schedule No. 6, is a statistical account which is debited each month, by means of several monthly journal entries, with all the fixed and estimated expenses of generating power and heat, including the estimated cost of maintaining the power plant, coal shed, engine, boilers, main line shafting, hangers, pulleys, belting, etc. It is assumed that the company secures its water from an artesian well, the supply tank being counted as part of the power plant. Steam power is used exclusively. Electric current for lighting is purchased from the local electric lighting company. The charges to the power and heat account include the cost of both power and heat. An estimate of the annual cost of heating is made, amounting in this case to \$100 per month (a ridiculously large amount). In distributing the total debits to power and heat account each month, heating account is debited with \$100; machine shop account is debited with the estimated cost of power which it consumes; and manufacturing expenses account is debited with the balance, representing the estimated cost of power consumed by the production centers. The various debits to power and heat account are offset by credits to maintenance of power plant building, accrued taxes, insurance premiums prepaid, reserve for depreciation of power plant equipment, reserve for depreciation of main line shafting, hangers, belting, pulleys, etc., reserve for repairs to power plant equipment, reserve for repairs to main line shafting, hangers, belting, pulleys, etc., oil, waste and grease used, fuel consumption, moving ashes, power plant wages and interest on capital accounts. Differences between the actual and estimated expenses of maintaining the power plant building will be reflected in the accounts which offset those debits to maintenance of power plant building representing variable expenses. The difference

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between the estimated repairs and the repairs actually incurred in connection with the equipment, and also the main line, is shown by the balances of the two reserves for repair accounts mentioned above. The balances of oil, waste and grease used, fuel consumption, moving ashes, and power plant wages, reflect the difference between the estimated and the actual amount of these expenses. The balance of oil, waste and grease used account would not necessarily indicate that the estimated amount chargeable to power and heat is too large or too small, because this account is credited with the estimated cost of oil, waste and grease used by the production centers, and also by the machine shop. It is debited with the cost of oil, waste and grease requisitioned from stock. Oil cups on the main line and on certain machines may be large enough to hold a month's supply or more. If these cups happen to be filled at the end of a month, and if the oil, waste and grease used account shows a debit balance at the close of that month, it will not be correct to close out such a balance and distribute it to the active jobs, on the ground that it represents the excess of actual over estimated cost of oil, waste and grease used. In such a case the balance is just as much an asset as the oil in the storeroom.

It seems unnecessary to treat at length the remaining accounts corresponding to schedules 7 to 14. Their debits and credits should be readily understood if the monthly journal entries are studied in connection with the accounts and their corresponding schedules. However, it would seem desirable to touch briefly upon the operating accounts which show by their balances the difference between estimated and actual expenses. The difference between the debits and credits to lighting account for any one month shows that the cost of lighting is either more or less than the monthly proportion of the estimated annual cost of lighting. It is perfectly logical that the account should show a credit balance in the months from April to October, and a debit balance in the remaining months. The estimate of the annual cost of lighting can only be lined up once a year. Of course if there is much overtime the expense of lighting is relatively increased thereby. There is no doubt that the different production orders participating in overtime should be charged their proper proportion of all excess expenses incurred as a result. It is, therefore desirable to determine as accurately as

possible the cost of extra lighting for overtime, as well as the cost of extra fuel consumption, oil, waste and grease used, and the amount paid for overtime to foremen, factory clerks, etc.; and the aggregate of these expenses should be distributed over the active jobs, as explained heretofore.

It is impossible to reconcile the actual taxes with the estimated, at least until the assessment is made; and by that time it is too late to adjust the taxes accrued account by distributing the balance over the various production orders affected. Therefore it seems advisable to adjust the difference once a year as between the manufacturing and non-manufacturing departments, as explained heretofore.

Reserve for upkeep of grounds account will normally show a debit balance in the summer months and a credit balance in the winter months, provided the expenses chargeable to this account have to do largely with the upkeep of lawns, roadways, etc. Here, again, it would seem inadvisable to attempt a monthly adjustment of the difference. Of course, if the difference of an account indicates clearly that the estimate is wrong, a proper adjustment of the schedules, hourly rates, etc., must be effected.

The various reserves for repairs show by their debit balances the excess of repair cost over the amount reserved to cover such cost; if a credit balance the reverse condition applies. A credit balance does not necessarily indicate that too much has been reserved; because the need for one or more large repairs may already exist, and yet such repairs may not have been actually made. If they are made in the following month the seemingly large credit balance may be absorbed. The needs for repairs are constantly accruing, hence the reserve for repairs and renewals should show a normal credit balance at all times. An unexpected or abnormal charge for repairs might result in causing a debit balance to be shown, but this should in no way affect the normal costing figures because it would not be the result of normal conditions. In fact, any extraordinary or abnormal charge for repairs might correctly be charged to profit and loss and shown on the profit and loss statement as a deduction from net profit from operations.

The balance of fuel consumption account, if not abnormally large, might better be carried forward than distributed over the active production orders each month. In a large plant where

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live steam has to be generated for heating during four or five months of the year, the balance of fuel consumption account should normally be a debit during the cold months and a credit during the warm months. Of course, an abnormal balance of this account should be carefully investigated, with the idea of making any necessary adjustment in the schedule covering power cost, as well as in the schedules of production centers affected. The charges to fuel consumption account will increase in case of overtime. It should not be a difficult matter to determine the increase of charges occasioned by overtime; and this increase should be distributed as explained heretofore.

The various wages and salary accounts should be handled in exactly the same way as fuel consumption account. In some of these accounts, as for example, general office salaries, the balance, if any, relates to selling expenses and general administrative expenses as well as to manufacturing expenses; and consequently, if this class of expenses is incorrectly estimated, the first two expense accounts mentioned are affected to the same extent as manufacturing expenses are affected. A material mistake in estimating any element of expense burden is a very serious matter, because it may call for the correcting of several schedules and also the correcting of every schedule made up for the various production centers thus changing their hourly rates.

At the close of each month the aggregate cost of raw materials used is debited to manufacturing and credited to raw materials, both being general ledger accounts. The aggregate cost of finished parts used is debited to manufacturing and credited to finished parts accounts. The aggregate cost of direct labor charged to the various production orders in the cost ledger is debited to manufacturing and credited to pay-roll accounts. The production orders in the cost ledger are debited with raw materials, finished parts, and direct labor, either daily, weekly or monthly, from daily requisitions and time tickets, or from daily or monthly summaries of requisitions and time tickets. Manufacturing account in the general ledger is the controlling account for the cost ledger. At the close of a month it is debited with the total amount of expense burden charged to the various production orders on the basis of hours worked by centers, and may also be debited with the undistributed expense burden, if any, which is distributed over the active production orders by means of the supplementary rate. It will thus be seen that

manufacturing account is debited each month with the three elements of production cost,—materials, direct labor and expense burden—and that each active production order is charged with its proper share of these elements. When a production order is completed, the date of completion should be conspicuously noted on the cost sheet or card. After expense burden has been distributed to the active production orders, the aggregate cost of completed production orders should be determined. Finished goods account should be debited with the aggregate cost of all finished products completed during the month, finished parts account with the aggregate cost of parts finished during the month, and manufacturing account credited with the sum of the two debits. The balance of manufacturing account will now represent the cost of production orders in process. Of course the sheets or cards in the cost ledger showing completed production orders should be transferred so as to leave only the jobs in process. A trial balance compiled from the cost ledger should now agree with the balance of the manufacturing account.

The aggregate cost of goods sold during a month should be debited to cost of goods sold account and credited to finished goods account. This latter account should then show by its balance the cost of finished goods on hand. Obviously, the difference between the net sales and the cost of goods sold will represent the gross profit or loss on sales.

The A. H. C. Manufacturing Company commenced business on January 1, 1908. The present accounting system was installed as of January 1, 1913. The trial balance submitted shows the balances of all open ledger accounts before the monthly entries for April are posted, and covers the period from January 1 to April 30, 1913. The balance of each operating account which represents a variable element of expense burden is the difference between the estimated and the actual expense for the four months ending April 30, 1913. It is important to understand the functions of these operating accounts representing variable elements of expense burden, and equally important to understand the functions of the estimated manufacturing expenses account. (The qualification "estimated" is not at all necessary—simply a matter of choice in terminology.) Each of the operating accounts representing a variable element of expense burden would balance if the actual expenses as charged agreed with the esti-

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mated expenses as credited. A debit balance indicates that the actual expenses charged to a given account exceed the amount of estimated expenses credited, and *vice versa*. Estimated manufacturing expenses account is debited with the fixed and estimated elements of expense burden, and at the same time the operating accounts referred to are credited. Estimated manufacturing expenses account is credited with the amount of expense burden distributed to the active production orders on the basis of hours worked by production centers and at the same time manufacturing account is debited. If some or all of the production centers are operated less than their normal running time a debit balance will result, and it may be distributed over the active production orders on the "supplementary rate" basis, while at the same time manufacturing account is debited and estimated manufacturing expenses account credited. If some or all of the production centers are operated more than their normal running time a credit balance will result, and it should be disposed of according to whichever method seems most equitable and practicable.

Those who make a study of this problem will probably discover certain weak points in the general scheme as outlined. It would be extremely unfair to MR. CHURCH and his writings if one should assume that this problem covers all or even a large part of his ideas on the scientific method of distributing expense burden. It is merely an attempt to illustrate the application of a few of the more general ideas presented in his two books; and it will not be difficult to criticize certain features of it, because in such a problem as that given it is impossible to cover the big subject of expense distribution, save in a general and very limited manner. One may criticize some of MR. CHURCH's ideas; but the test of the critic is his capacity for devising better ideas. In the opinion of the present writer, MR. CHURCH gives us the ideals toward which we should be working, although modifications may be deemed advisable at times.

The writer will attempt to anticipate some of the criticisms likely to occur to the minds of those who study this problem.

The inclusion of interest on fixed assets as one of the elements of expense burden means that we capitalize such part of the interest charges as is included in the cost of goods in process and finished goods on hand. All such interest charges are credited

to interest on capital account. Since this latter account is closed into profit and loss, it follows that the net profit includes some unearned interest; in other words, there is an anticipation of return on capital to the extent of the amount of interest included in the cost of goods in process and finished goods on hand.

If some centers were worked more than their normal running time during a month in which other centers were worked less than their normal running time, the balance of estimated manufacturing expenses account would have very little meaning. Even though it were possible to determine the hours worked by each production center during a month, so that the overtime and undertime of each could be ascertained, it would be extremely difficult to dispose of the complex balance referred to except in a very arbitrary manner. Hence the importance of establishing an overtime rate for each production center.

If one or more production centers are added, the schedules covering all centers in the department affected must be recast. In fact the addition of a production center might necessitate the recasting of all schedules except No. 1. If the addition occurred in the latter part of a fiscal year it would hardly pay to recast the schedules. An arbitrary hourly rate could be used for the additional center, and the charge for its running time could be credited to adjustment of estimated manufacturing expenses account, or to estimated manufacturing expenses account, if desired.

It is not unusual to find one or more machines installed for the purpose of doing special work which occurs irregularly, depending upon the volume of a certain kind of business secured. It is impossible to estimate accurately the running time of such a machine for a year in advance, because its running time depends upon the demands of the trade for a given class of work for which that machine was installed exclusively. Again, a machine may do enough work in two hours to keep the remaining centers in that department running full time. If the remaining centers are operated less than their normal running time, the one machine referred to may still be operated just as many hours, because it is operated on smaller batches—a small batch taking as much time to run through as a normal batch. If all centers were worked either overtime or undertime it would simplify the matter very much; but where some are cut off or worked undertime, others worked irregularly, and still others worked

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overtime, the balance of estimated manufacturing expenses becomes very complex. An overtime rate for each center will solve such difficulties if estimated with a fair degree of accuracy.

Certain elements of selling expenses and general administrative expenses are involved in the estimating of variable elements of expense burden—such as taxes, repairs of office building, general office salaries (where a certain per cent of the total is charged to manufacturing), office supplies (where a per cent of the total is charged to manufacturing), etc. It follows, therefore, that the balances of certain operating accounts should not be considered as applying to manufacturing exclusively. That portion of each balance which applies to selling expenses (including shipping) or general administration expenses should be eliminated monthly, semi-annually or annually, depending on the policy adopted; and the balance remaining may be treated as applying to manufacturing. The estimating of selling expenses and general administrative expenses is probably carried to an excess in this problem. It is desirable to estimate as few of such elements as possible. Some elements involving non-manufacturing expenses have to be estimated, such as upkeep of grounds, repairs to office building, taxes on land, taxes on office building, taxes on office equipment, repairs and taxes on factory building in which the shipping department is located, fuel consumption (involving the heating of the offices and shipping department), oil, waste and grease used in the power plant (involving the heating of the offices and shipping department), office supplies used (involving at least the shipping department), etc. This makes it very difficult to define the balances of those variable operating accounts which involve both manufacturing and non-manufacturing expenses. Their balances represent the difference between the actual and estimated expenses; but the difficult part is to determine what proportion applies to expense burden and what to selling expenses or general administrative expense—or both.

The actual power consumption of machines may vary widely as between months on account of the character of work being done, the condition of the belting—whether too tight or too loose—the speed used in operating where the machine is speeded low for green operatives, the time the machine is cut off on account of an operative absenting himself, etc. These conditions

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cannot be reflected to a nicety through any scheme of distributing expense burden; but their effect on fuel consumption is not likely to be material. The estimating of the normal running time of each center and the power consumption of each machine are two of the most difficult features to be encountered in establishing for each center an hourly rate that will serve satisfactorily for a year.

No scientific method for distributing expense burden can be devised to meet all requirements (at least without intelligent modifications) nor can any one method be applied to all lines of manufacturing. The CHURCH method is well worth understanding, in that it may be put into operation where it fits—and there are many places where it will fit if it has the right fitter.

MONTHLY JOURNAL ENTRIES

Maintenance of land	\$ 6.25	
Maintenance of office building	20.00	
Maintenance of warehouse building	8.09	
Maintenance of power plant building	9.50	
Maintenance of factory building	68.00	
Maintenance of production centers (taxes on centers) ..	46.00	
Shipping department (taxes on finished stock)	4.00	
Power and heat (taxes on power and plant equipment) ..	13.92	
Machine shop (taxes on machine shop equipment)	13.83	
Buying, receiving, warehousing, etc. (taxes on material and supplies)	7.17	
General administrative department (federal and corporation taxes)	24.00	
Taxes accrued		\$ 220.76
Distribution of one-twelfth of estimated annual taxes, including municipal, state and federal.		
Maintenance of land	10.42	
Reserve for upkeep of grounds		10.42
One-twelfth of estimated annual cost of caring for the grounds.		
Maintenance of land	17.50	
Maintenance of office building	62.50	
Maintenance of warehouse building	25.00	
Maintenance of power plant building	33.33	
Maintenance of factory building	166.67	
Maintenance of production centers (interest on centers) ..	200.00	
Machine shop (interest on equipment)	50.00	
Selling department (interest on office equipment)	5.00	
Superintendence (interest on office equipment)	9.17	
Buying, receiving, etc. (interest on office equipment) ..	9.17	
Organization (interest on office equipment)	9.00	
Pay-roll department (interest on office equipment)	9.17	

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General admin. dept. (interest on office equipment)...	15.00	
Power and heat (interest on power plant equipment)...	83.33	
Power and heat (interest on main line shafting, etc.)	83.33	
Interest on capital		778.17
Distribution of interest for one month at 5 per cent on fixed assets.		
Maintenance of office building	9.49	
Maintenance of warehouse building	1.64	
Maintenance of power plant building	2.20	
Maintenance of factory building	20.84	
Maintenance of land		34.17
Distribution of monthly charges to maintenance of land account.		
Maintenance of office building	2.50	
Maintenance of warehouse building	1.00	
Maintenance of power plant building	1.21	
Maintenance of factory building	6.67	
Shipping department (insurance on finished stock)...	1.00	
Power and heat (insurance on power plant equipment)	2.17	
Buying, receiving, etc. (insurance on material, supplies and goods in pro.)	1.33	
Machine shop (insurance on mchny. shop equipment)	.67	
Maintenance of production centers (insurance on production centers)	15.00	
Insurance premiums prepaid		31.55
One-twelfth of annual insurance premiums, including employer's liability insurance, fidelity insurance, etc.		
Maintenance of office building	5.00	
Reserve for repairs to office building		5.00
One-twelfth of estimated annual repairs to office building.		
Maintenance of warehouse building	3.00	
Reserve for repairs to warehouse building ...		3.00
One-twelfth of estimated annual repairs to warehouse building.		
Maintenance of power plant building.....	6.00	
Reserve for repairs to power plant building...		6.00
One-twelfth of estimated annual repairs to power plant building and coal shed.		
Maintenance of factory building	8.33	
Reserve for repairs to factory building.....		8.33
One-twelfth of estimated annual repairs to factory building.		
Maintenance of production centers	750.00	
Reserve for repairs to production centers		750.00

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One-twelfth of estimated annual repairs to machinery and equipment used as production centers.

Power and heat	50.00	
Reserve for repairs to power plant equipment		50.00
One-twelfth of estimated annual repairs to power plant equipment (engine, boilers, etc.).		
Power and heat	16.67	
Reserve for repairs to main line		16.67
One-twelfth of estimated annual repairs to main line shafting, pulleys, hangers, belting, etc.		
Machine shop	16.67	
Reserve for repairs to machine shop equipment.		16.67
One-twelfth of estimated annual repairs to machinery and tools used in the machine shop.		
Maintenance of office building (2% per annum).....	25.00	
Maintenance of warehouse building (2% per annum)	10.00	
Maintenance of power plant building (3% per annum)	20.00	
Maintenance of factory building (2½% per annum)..	83.33	
Reserve for depreciation of buildings		138.33
Distribution of one-twelfth of estimated annual depreciation of buildings.		
Buying, receiving, warehousing and storing.....	12.45	
Organization	37.35	
Selling department	24.89	
General administrative department	49.80	
Maintenance of office building		124.49
Distribution of one-twelfth of estimated annual cost of maintaining office building.		
Buying, receiving, warehousing and storing	48.73	
Maintenance of warehouse building		48.73
One-twelfth of estimated annual cost of maintaining warehouse building.		
Power and heat	72.24	
Maintenance of power plant building		72.24
One-twelfth of estimated annual cost of maintaining power plant building.		
Superintendence	7.68	
Pay-roll department	10.24	
Shipping department	66.56	
Machine shop	40.96	
Buying, receiving, warehousing and storing	25.60	
Maintenance of production centers	202.80	
Maintenance of factory building		353.84
Distribution of one-twelfth of estimated annual cost of maintaining factory building.		
Power and heat	400.00	
Power plant wages		400.00

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One-twelfth of estimated annual wages of engineer, firemen and helpers.		
Power and heat	120.00	
Fuel consumption		120.00
One-twelfth of estimated annual cost of fuel consumption.		
Power and heat	64.83	
Machine shop	30.00	
Estimated manufacturing expenses	100.00	
Oil, waste and grease used		194.83
Distribution of one-twelfth of estimated annual cost of oil, waste, grease, etc., used.		
Power and heat	2.50	
Moving ashes		2.50
One-twelfth of estimated annual cost of removing ashes.		
Power and heat	83.33	
Reserve for depreciation of power plant equip.		83.33
One-twelfth of estimated annual depreciation on engine, boilers, etc.		
Power and heat	50.00	
Reserve for depreciation of main line shafting, etc.		50.00
One-twelfth of estimated annual depreciation on main line shafting, hangers, pulleys and belting.		
Machine shop (power)	40.00	
Manufacturing expenses (power)	907.32	
Heating	100.00	
Power and heat		1,047.32
Distribution of one-twelfth of estimated annual power and heating cost.		
Maintenance of centers (depreciation).....	250.00	
Reserve for depreciation of production centers		250.00
One-twelfth of estimated annual depreciation of machinery, etc., used as production centers.		
Estimated manufacturing expenses (main. of prod. centers)	1,463.80	
Maintenance of production centers		1,463.80
One-twelfth of estimated annual charges for maintaining production centers.		
Organization	60.00	
Wages of watchman		60.00

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One-twelfth of estimated annual wages of watchman.

Estimated mfg. expenses (applicable to production centers)	20.00	
Superintendence (superintendent's office)	1.17	
Machine shop	6.50	
Pay-roll department	1.00	
Shipping department	3.00	
Power and heat	5.00	
Buying, receiving, etc.	5.00	
Selling department	3.00	
Organization	6.00	
General administrative department	8.00	
Lighting		58.67

Distribution of one-twelfth of estimated annual lighting cost.

Estimated mfg. expenses (applicable to prod. centers)	34.00	
Superintendence (superintendent's office)	3.00	
Pay-roll department	4.00	
Shipping department	10.00	
Organization	10.00	
Receiving, warehousing, etc.	10.00	
Machine shop	8.00	
Selling department	6.00	
General administrative department	15.00	
Heating		100.00

Distribution of one-twelfth of estimated annual heating cost.

Superintendence (superintendent's salary)	500.00	
Superintendence (foremen's salaries)	1,250.00	
Superintendent's and foremen's salaries		1,750.00

One-twelfth of estimated annual salaries of superintendent and foremen.

Superintendence (miscellaneous expenses)	8.33	
Miscellaneous expenses of superintendence...		8.33

One-twelfth of estimated annual miscellaneous expenses of superintendence department.

Superintendence (clerical help)	183.33	
Pay-roll department (clerical help)	191.67	
Factory clerk hire		375.00

Distribution of one-twelfth of estimated annual wages of clerks in superintendent's office and pay-roll department.

Superintendence (office supplies)	8.33	
Pay-roll department (office supplies)	20.83	
Shipping department (office supplies)	16.67	
Organization (office supplies)	29.17	
Buying, receiving, etc. (office supplies)	16.67	
Selling expenses (office supplies)	20.83	
General administrative department (office supplies)...	30.00	
Office supplies used		142.50

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Distribution of one-twelfth of estimated annual cost of office supplies used.

Organization (depreciation of office equipment)	9.17	
Buying, receiving, etc. (depreciation of office equip.)..	9.17	
Superintendence (depreciation of office equipment)...	6.00	
Pay-roll department (depreciation of office equip.)...	4.00	
Selling department (depreciation of office equipment)	15.00	
General administrative department (depreciation of office equipment)	24.00	
Reserve for depreciation of office equipment..		67.34

Distribution of one-twelfth of estimated annual depreciation of office equipment.

Estimated manufacturing expenses	1,977.01	
Superintendence		1,977.01
One-twelfth of estimated annual expenses of superintendence.		
Pay-roll department (miscellaneous expenses)	8.33	
Miscellaneous expenses of pay-roll department		8.33
One-twelfth of estimated annual miscellaneous expenses of pay-roll department.		
Shipping department (wages)	283.33	
Shipping department wages		283.33
One-twelfth of estimated annual wages of shipping department employees.		
Shipping department (miscellaneous expenses).....	8.33	
Miscellaneous shipping department expenses..		8.33
One-twelfth of estimated annual miscellaneous expenses of shipping department.		
Selling expenses (shipping department expenses).....	392.89	
Shipping department		392.89
One-twelfth of estimated annual expenses of the shipping department.		
Organization (wages of cost accounting staff).....	691.67	
Wages of cost accounting staff		691.67
One-twelfth of estimated annual salaries of cost accounting staff.		
Organization (pay-roll department expenses).....	249.24	
Pay-roll department		249.24
One-twelfth of estimated annual expenses of pay-roll department.		
Organization (proportion of officers' salaries)	450.00	
Selling department (salaries)	2,350.00	
General administrative department (salaries)	4,375.00	
Buying, receiving, etc. (salaries)	500.00	
General office salaries		7,675.00

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Distribution of one-twelfth of estimated annual salaries of officers and employees in general office.

Organization (miscellaneous expenses)	8.33	
Miscellaneous organization expenses		8.33
One-twelfth of estimated annual miscellaneous organization expenses.		
Estimated mfg. expenses (organization expenses)....	1,559.93	
Organization		1,559.93
One-twelfth of estimated annual expenses of factory organization expenses.		
Buying, receiving, etc.	116.67	
Receiving and warehousing department wages		116.67
One-twelfth of estimated annual wages of receiving and warehousing employees.		
Buying, receiving, etc.	125.00	
Wages of storekeeper and assistants		125.00
One-twelfth of estimated annual wages of storekeeper and assistants.		
Buying, receiving, etc.	100.00	
Hauling inward		100.00
One-twelfth of estimated annual cost of inward hauling.		
Estimated manufacturing expenses	986.96	
Buying, receiving, etc.		986.96
One-twelfth of estimated annual expenses of the purchasing, receiving, warehousing and storing departments.		
Machine shop	791.67	
Machine shop wages		791.67
One-twelfth of estimated annual wages of machine shop foreman, mechanics and helpers.		
Machine shop	50.00	
Reserve for depreciation of machine shop equipment		50.00
One-twelfth of estimated annual depreciation on machine shop equipment.		
Machine shop	8.33	
Miscellaneous machine shop expenses		8.33
One-twelfth of estimated annual machine shop miscellaneous expenses.		
Reserve for repairs to production centers	556.63	
Machine shop		556.63

A Problem in the Distribution of Expense Burden

One-twelfth of the proportion of estimated annual expenses of the machine shop which it is considered will be absorbed in repair work executed by that department. It is estimated that the balance of machine shop expenses will be absorbed by new work, such as the building of new machines, etc. Of course machine shop expenses do not include repair parts and purchased materials used in making repairs or building new machines. They cover only labor and manufacturing expenses of the machine shop.

New work—machine shop	500.00	
Machine shop		500.00
One-twelfth of that proportion of the estimated annual expenses of the machine shop which it is considered will be absorbed by new work executed by the machine shop, such as the building of new machines, etc.		
Maintenance of workmen's cottages	140.00	
Reserve for depreciation of workmen's cottages		140.00
One-twelfth of estimated annual depreciation of workmen's cottages, based upon 5% per annum computed on the cost.		
Maintenance of workmen's cottages	2.20	
Insurance premiums prepaid		2.20
One-twelfth of insurance premiums on policies covering workmen's cottages.		
Maintenance of workmen's cottages	16.00	
Accrued taxes		16.00
One-twelfth of estimated annual taxes on workmen's cottages and accompanying plots of land.		
Maintenance of workmen's cottages	170.83	
Interest on capital		170.83
Interest for one month at 5% on cost of workmen's cottages and plots.		
Maintenance of workmen's cottages	40.00	
Reserve for repairs to workmen's cottages...		40.00
One-twelfth of estimated annual repair charges to workmen's cottages.		
Manufacturing	6,213.55	
Manufacturing expenses		6,213.55
Distribution of that part of the estimated manufacturing expenses for April which is chargeable to the active production orders on the basis of the number of hours worked by each production order.		
Manufacturing	2,555.01	
Manufacturing expenses		835.47
Lost time		1,719.54

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Distribution of that portion of the estimated manufacturing expenses for April left undistributed after charging to each active production order its proportion of normal manufacturing expenses, determined by multiplying the number of hours worked by each production center by the rate per hour of manufacturing expenses chargeable to that production center, and also to distribute the lost time over the active production orders. This distribution is done by means of employing a "supplementary rate."

Manufacturing	31,852.00	
Lost time	1,719.54	
Power plant wages	388.00	
Wages of watchman	60.00	
Superintendent's and foremen's salaries	1,685.00	
Factory clerk hire	358.00	
Shipping department wages	275.00	
Wages of cost accounting staff	691.67	
General office salaries	7,675.00	
Receiving and warehousing wages	108.00	
Wages of storekeeper and assistants	97.53	
Machine shop wages	604.26	
Pay-roll		45,514.00

Monthly distribution of the cost of personal services purchased during April, as per analysis of time cards, etc.

Manufacturing	36,416.00	
Raw materials		36,416.00
Cost of raw materials used during April.		
Reserve for repairs to production centers	217.62	
Reserve for repairs to power plant equipment	31.48	
Reserve for repairs to main line	164.00	
Reserve for repairs to machine shop equipment.....	108.00	
Factory supplies and repair parts		521.10
Cost of repair parts used during April.		
Oil, waste and grease used	189.52	
Oil, waste and grease		189.52
Cost of oil, waste and grease used during April.		
Fuel consumption	114.50	
Fuel		114.50
Cost of fuel used during April per engineer's reports of fuel consumed.		
Office supplies used	127.80	
Office supplies		127.80
Cost of office supplies used during April per requisitions on stores.		
Production machinery and equipment	750.00	
New work—machine shop		750.00

A Problem in the Distribution of Expense Burden

Cost of two new machines constructed by the machine shop to be used in the factory as production centers. Both these machines were completed in April.

Interest on notes receivable	28.50	
Interest accrued on notes receivable		28.50
To adjust latter account to agree with the amount of interest accrued on notes receivable on hand as of 4/1/13:		
Balance of account as of 3/31/13.....	\$116.00	
Amount accrued as of 4/30/13	87.50	
Difference as above	\$ 28.50	
<hr/>		
Interest on notes payable	375.00	
Interest prepaid on notes discounted		375.00
To adjust latter account to agree with the amount of interest prepaid on notes payable discounted as of 4/30/13:		
Balance of account, 3/31/13	\$967.00	
Amount prepaid, 4/30/13	592.00	
Difference as above	\$375.00	
<hr/>		
Interest on mortgages payable	229.17	
Interest accrued on mortgages payable		229.17
Interest at 5½% for month of April on mortgages outstanding.		
Treasury stock	32,400.00	
Working capital donated		32,400.00
Net proceeds received from sale of 432 shares of treasury stock. The above amount was credited to treasury stock account when received.		
Treasury stock donated	43,200.00	
Treasury stock		43,200.00
To take out of the above nominal accounts the 432 shares of treasury stock which have been sold, the net proceeds from their sale having been credited to working capital donated account, as per the preceding entry. This leaves 68 shares in the treasury.		
Finished goods	77,428.00	
Manufacturing		77,428.00
Cost of goods finished during April transferred to finished goods account.		
Cost of goods sold	61,521.00	
Finished goods		61,521.00
Cost of goods sold during April transferred from finished goods account to cost of goods sold account.		

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BALANCE OF STORES AND EQUIPMENT			
Balance	\$12.50	Pay 4-11	\$125.00
	97.50		
MACHINE SHOP EXPENSES			
Pay roll	\$606.00	Balance	\$26.40
		Machine Shop	\$71.97
EXPENSES FOR REPAIRS TO POWER PLANT EQUIPMENT			
		Balance	\$28.80
		Main of Grounds	10.42
EXPENSES FOR REPAIRS TO OFFICE BUILDING			
		Balance	\$18.00
		Main of off Bldg	8.00
EXPENSES FOR REPAIRS TO WAREHOUSE BUILDING			
		Balance	\$9.00
		Main of Ware Bldg.	8.00
EXPENSES FOR REPAIRS TO POWER PLANT BUILDING			
Balance	\$27.00	Main of P P Bldg	\$6.00
EXPENSES FOR REPAIRS TO FACTORY BUILDING			
		Balance	\$18.00
		Main of Fac Bldg	8.99
EXPENSES FOR REPAIRS TO PRODUCTION EQUIPMENT			
Machine Shop	\$606.65	Balance	\$216.00
Repair Parts	\$17.55	Prod Mach & Eq	\$70.00
EXPENSES FOR REPAIRS TO POWER PLANT EQUIPMENT			
Balance	\$96.00	Power and Heat	\$60.00
Repair Parts	" "	" "	81.99
EXPENSES FOR REPAIRS TO MAIN LINE			
Repair Parts	" "	Balance	\$21.00
		Power and Heat	16.47
EXPENSES FOR REPAIRS TO MACHINE SHOP EQUIPMENT			
Repair Parts	" "	Balance	\$2.56
		Machine Shop	16.47
EXPENSES FOR REPAIRS TO WORKMEN'S COTTAGES			
		Balance	\$78.00
		Main of Work. Cott	40.00
LOST TIME			
Pay roll	\$1,719.84	Wkg. Exp. Note	\$1,719.84
CAPITAL STOCK			
		Balance	\$600,000.00
BONDS			
		Balance	\$176,000.00
FUEL CONSUMPTION			
Balance	\$28.00	Power and Heat	\$120.00
Fuel Used	" "	" "	114.97
OIL, GREASE AND LUBRICANTS USED			
O. W. & S.	\$129.62	Balance	\$68.10
		Lubricants	177.99
OFFICE SUPPLIES USED			
Balance	\$26.24	Stationery	\$162.80
Office Supplies	" "	" "	177.99
ROUTING AGENTS			
		Balance	\$2.97
		Power and Heat	5.97
ROUTING CHARGES			
Balance	\$42.85	Buy. P. & H. etc.	\$300.00
RENTS			
Balance	\$68.00	Distribution	" "
		" "	\$90.47
REVENUE			
Power and Heat	\$100.00	Distribution	\$160.00
REVENUE FROM SALES OF POWER			
		Balance	\$14.00
		Superintendence	5.99
REVENUE FROM SALES OF FUEL OIL			
Balance	\$11.64	Pay Roll Dept.	\$6.36
REVENUE FROM SALES OF SHIPPING DEPARTMENT			
Balance	\$19.00	Shipping Dept.	\$6.36
REVENUE FROM SALES OF TRANSPORTATION DEPARTMENT			
		Balance	\$68.00
		Organization	5.99
REVENUE FROM SALES OF REVENUE DEPT			
		Balance	\$17.00
		Machine Shop	5.99
COST OF GOODS SOLD			
Balance	\$76,000.00	Finished Goods	\$21.00
		" "	177.99
SALES			
		Balance	\$68,436.00
SALES EXPENSES			
Balance	\$18,000.00	Office Bldg.	\$2.97
Space - Off. Bldg.	\$2.97	Exp. on Equip.	8.00
Light	8.00	Post	8.00
Post	8.00	Off. Supplies	16.00
Off. Supplies	16.00	Dep. of Off. Equip.	16.00
Dep. of Off. Equip.	16.00	Shipp. Dept. Exp.	222.00
Shipp. Dept. Exp.	222.00	Salaries	1,719.84
GENERAL ADMINISTRATIVE EXPENSES			
Balance	\$16,000.00	Space - Off. Bldg.	\$2.97
Space - Off. Bldg.	\$2.97	Taxes on Equip.	16.00
Taxes on Equip.	16.00	Exp. on Equip.	8.00
Light	8.00	Post	8.00
Post	8.00	Office Supplies	16.00
Office Supplies	16.00	Dep. of Off. Equip.	16.00
Dep. of Off. Equip.	16.00	Salaries	1,719.84
INTEREST ON NOTES PAYABLE			
Balance	\$68.00	Interest Accrued	\$17.00
INTEREST ON BONDABLE PAYABLE			
Balance	\$68.00	Interest Accrued	\$17.00
INTEREST ON OTHER DEBITABLE			
Balance	\$68.00	Interest Accrued	\$17.00
INCOME FROM SALE OF WARE			
		Balance	\$76.00
MAINTENANCE OF WORKMEN'S COTTAGES			
Balance	\$1,100.00	Depreciation	160.00
Depreciation	160.00	Ins. Prem. Prepaid	8.00
Ins. Prem. Prepaid	8.00	Accrued Taxes	16.00
Accrued Taxes	16.00	Interest on Cap.	170.00
Interest on Cap.	170.00	Repair to W. Cott.	40.00
Repair to W. Cott.	40.00	" "	" "
INCOME FROM WORKMEN'S COTTAGES			
		Balance	\$600.00
EXPENSES ON CAPITAL			
		Balance	\$6,000.00
		Main. of W. Cott.	170.00
		Salaries	177.99
PENDING CAPITAL EXPENSES			
		But Pro. 4th Qtr.	\$60,000.00

A Problem in the Distribution of Expense Burden

AND MANUFACTURING COMPANY

TRIAL BALANCE APRIL 30, 1918 AFTER ALL EXPENSES SETTING ARE TAKEN.

Land	\$4,200 00		
Buildings	88,000 00	\$4,420 38	
Reserve for Depreciation of Buildings			
Production Machinery and Equipment	48,750 00	12,990 00	
Reserve for Depreciation of Production Centers			
Power Plant Machinery and Equipment	20,000 00	4,448 38	
Reserve for Depreciation of P. P. Mch. and Equip.			
Main Line Shafting, Hangers, Bolting, etc.	20,000 00	8,080 00	
Reserve for Depreciation of Main Line			
Machine Shop Machinery and Equipment	12,000 00	2,846 00	
Reserve for Dep. of Machine Shop Mch. and Equip.			
Small Tools	2,480 00		
New Work - Machine Shop (machines in construction)	458 74		
Office Equipment	8,080 00	3,889 34	
Reserve for Depreciation of Office Equipment			
Good Will	75,000 00		
Income-Producing Real Estate:			
Land	5,000 00		
Workmen's Cottages	24,000 00	7,360 00	
Reserve for Depreciation of Workmen's Cottages			
Treasury Stock	4,800 00		
Treasury Stock Donated (500 Shares of Common)		4,800 00	
Cash	15,842 00		
Accounts Receivable	124,828 00		
Notes Receivable	88,354 00	18,418 00	
Notes Receivable Discounted			
Interest Accrued on Notes Receivable	87 50		
Finished Goods	124,907 00		
Manufacturing (Goods in Process)	77,226 56		
Raw Materials	199,584 00		
Fuel	511 50		
Oil, Waste, Grease, etc.	186 48		
Factory Supplies and Repair Parts	2,840 00		
Interest Prepaid on Notes Discounted	598 00		
Insurance Premiums Prepaid	323 25		
Office Supplies	441 80		
Mortgages Payable (5 1/2%)		50,000 00	
Accounts Payable		42,000 00	
Notes Payable (Discounted at Bank)		75,000 00	
Interest Accrued on Mortgages Payable		687 50	
Taxes Accrued		947 04	
Pay Roll		7,814 00	
Power Plant Wages	26 00		
Superintendent's and Foremen's Salaries		158 00	
Factory Clerk Hire	15 00		
Shipping Department Wages		85 83	
Wages of Cost Accounting Staff	116 00		
General Office Salaries	72 00		
Receiving and Warehousing Wages	51 58		
Wages of Storekeeper and Assistants		14 97	
Machine Shop Wages		289 81	
Reserve for Depreciation of Grounds		27 22	
Repairs to Office Building		20 00	
Warehouse Building		12 00	
Power Plant Building	21 00		
Factory Building		23 33	
Production Centers		791 75	
Power Plant Equipment	79 48		
Main Line	126 35		
Machine Shop Equipment	69 19		
Workmen's Cottages		113 00	
Capital Stock		500,000 00	
Surplus		179,053 82	
Fuel Consumption	26 50		
Oil, Waste and Grease Used		33 91	
Office Supplies Used	11 54		
Moving Expenses		8 47	
Hauling Inward		87 75	
Lighting		15 87	
Miscellaneous Expenses of Superintendence		22 88	
Pay Roll Department	5 11		
Shipping Department	11 17		
Organization		23 33	
Machine Shop		25 25	
Cost of Goods Sold	338,008 00		
Sales		402,416 00	
Selling Expenses	15,448 11		
General Administrative Expenses	20,977 80		
Interest on Notes Payable	1,260 00		
Mortgages Payable	916 67		
Notes Receivable		125 10	
Income from Sale of Waste		76 40	
Maintenance of Workmen's Cottages	1,476 12		
Income from Workmen's Cottages		960 00	
Interest on Capital		3,776 00	
Working Capital Donated		22,400 00	
	\$7,345,054 48	\$7,345,054 48	

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AND MANUFACTURING

PROPERTY

BALANCE SHEET

<u>ASSETS</u>				
FIXED ASSETS:				
Land		\$4,200	00	
Buildings	\$69,000.00			
Less:				
Reserve for Depreciation	<u>8,458.35</u>	60,541	67	
Production Machinery and Equipment	48,750.00			
Less:				
Reserve for Depreciation	<u>12,990.00</u>	35,760	00	
Power Plant Machinery and Equipment	20,000.00			
Less:				
Reserve for Depreciation	<u>4,448.35</u>	15,551	67	
Main Line Shafting, Hangers, etc.	20,000.00			
Less:				
Reserve for Depreciation	<u>5,050.00</u>	14,950	00	
Machine Shop Machinery and Equipment	12,000.00			
Less:				
Reserve for Depreciation	<u>2,246.00</u>	9,754	00	
Machines in course of Construction		468	74	
Small Tools		2,650	00	
Office Equipment	8,080.00			
Less:				
Reserve for Depreciation	<u>2,529.34</u>	4,550	66	\$148,449 74
GOOD WILL				75,000 00
INCOMING-PRODUCING REAL ESTATE:				
Land		5,000	00	
Workmen's Cottages	36,000.00			
Less:				
Reserve for Depreciation	<u>7,340.00</u>	28,660	00	35,660 00
CURRENT ASSETS:				
Cash		15,868	00	
Accounts Receivable		184,858	00	
Notes Receivable		7,839	00	
Interest Accrued on Notes Receivable		87	50	
Inventories:				
Finished Goods	166,907.00			
Goods in Process	77,235.56			
Raw Materials	<u>122,584.00</u>	443,726	86	680,355 06
DEFERRED CHARGES				5,753 98
				<u>\$915,216 78</u>

NOTE:

Of the 500 shares of Treasury Stock donated for the purpose of raising additional Working Capital, 68 shares remain in the Treasury, 432 shares having been sold at \$75 per share. Unsold shares not carried as an asset.

A Problem in the Distribution of Expense Burden

COMPANY

A

APRIL 30, 1918.

<u>LIABILITIES AND NET WORTH</u>			
FIXED LIABILITIES:			
Mortgage Payable (5 1/2%)			\$80,000 00
CURRENT LIABILITIES:			
Accounts Payable	\$42,000 00		
Notes Payable	75,000 00		
ACCUMULATED ITEMS:			
Taxes	\$847.04		
Pay Roll	7,514.00		
Interest on Mortgage Payable	687.50	9,148 54	126,148 54
DEFERRED CREDITS			1,844 92
TOTAL LIABILITIES			177,798 46
CAPITAL STOCK:			
Authorized Issue - 5,000 shares at the par value of \$100 per share, all of which are issued and outstanding			500,000 00
CAPITAL SURPLUS:			
Proceeds of sale of 432 shares of Treasury Stock at \$75 per share			32,400 00
UNDIVIDED SURPLUS:			
Balance March 31, 1918	191,705 45		
Add:			
Net Profit for the month of April (see Exhibit B)	11,317 99		203,023 22
			\$915,216 78

NOTE:

There is a contingent liability of \$18,415 on Notes Receivable Discounted.

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AND MANUFACTURING COMPANY

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EXHIBIT B

PROFIT AND LOSS STATEMENT - MONTH OF APRIL, 1915.

GROSS SALES (no returns)				\$90,000	00
Deduct:					
COST OF GOODS SOLD:					
Finished Goods on Hand March 31, 1915	\$151,000.00				
Cost of Goods Finished during April	<u>77,429.00</u>	\$229,429	00		
Finished Goods on Hand April 30, 1915		169,907	00	61,521	00
GROSS PROFIT ON SALES				18,479	00
Deduct:					
SELLING EXPENSES:					
Proportion of cost of maintaining and carrying Real Estate based upon the space utilized by the Selling Department	24.89				
Proportion of estimated cost of Heating applicable to Selling Department	6.00				
Proportion of cost of Lighting applicable to Selling Department	3.00				
Maintenance of Office Equipment:					
Depreciation	\$15.00				
Interest	<u>2.00</u>	20.00			
Office Supplies		20.85			
Salaries	<u>2,850.00</u>	2,424	72		
SHIPPING DEPARTMENT EXPENSES:					
Proportion of cost of maintaining and carrying Real Estate based upon the space utilized by the Shipping Department	66.56				
Proportion of estimated cost of Heating applicable to Shipping Department	10.00				
Proportion of cost of Lighting applicable to Shipping Department	3.00				
Insurance on Finished Goods	1.00				
Taxes on Finished Goods	4.00				
Office Supplies	16.67				
Salaries	283.33				
Miscellaneous Items	<u>8.33</u>	392	89		
GENERAL ADMINISTRATIVE EXPENSES:					
Proportion of cost of maintaining and carrying Real Estate based upon the space utilized by the General Administrative Department	49.80				
Proportion of estimated cost of Heating applicable to General Administrative Department	15.00				
Proportion of cost of Lighting applicable to General Administrative Department	8.00				
Maintenance of Office Equipment:					
Depreciation	\$24.00				
Interest	<u>15.00</u>	39.00			
Office Supplies		30.00			
Salaries	4,375.00				
Federal and Corporation Taxes	<u>24.00</u>	4,540	80		
TOTAL OPERATING EXPENSES				7,329	41
NET PROFIT FROM OPERATIONS				11,150	59
ADD:					
Interest on Capital		949	00		
Deduct:					
Interest on Mortgage Payable	229.17				
Interest on Notes Payable	375.00				
Interest on Notes Receivable Discounted	28.50				
Net Loss on Workmen's Cottages:					
Maintenance Charges	\$589.05				
Loss - Gross Income	<u>119.05</u>	751	70	197	50
NET PROFIT (see Exhibit A)				\$11,517	59

A Problem in the Distribution of Expense Burden

ABC MANUFACTURING COMPANY

EXHIBIT - SCHEDULE 1

CONDENSED STATEMENT OF PRODUCTION COSTS FOR THE MONTH OF APRIL, 1915.

RAW MATERIALS USED			\$36,416	00
PRODUCTIVE LABOR			\$1,652	00
EXPENSE BURDEN:				
Proportion of cost of maintaining and carrying Real Estate, based on floor space utilized by Production Centers		\$202	80	
Maintenance of Production Centers:				
Taxes	\$46.00			
Insurance	15.00			
Repairs	750.00			
Depreciation	250.00			
Interest	<u>200.00</u>	1,261	00	
Proportion of power cost applicable to Production Centers		907	52	
Oil, Waste and Grease used by Production Centers		100	00	
Proportion of estimated cost of Heating applicable to Production Centers		54	00	
Proportion of cost of Lighting applicable to Production Centers		20	00	
Indirect Services:				
Buying, Receiving, Warehousing, etc.	966.96			
Superintendence	1,977.01			
Organization	<u>1,559.93</u>	4,525	90	
Total Expense Burden - of which 86.15% is charged to Production Orders to cover the services rendered by Production Centers, and 11.85% to cover the lost time of Production Centers		6,213	55	
		625	47	7,049 02
Lost Time of Operatives				1,719 54
TOTAL PRODUCTION FACTORS FOR APRIL				77,036 56
Add:				
DIFFERENCE OF INVENTORIES:				
Goods in Process March 31st		77,627	00	
Goods in Process April 30th		<u>77,225</u>	56	391 44
COST OF GOODS FINISHED DURING APRIL (see Exhibit B)				\$77,428 00

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ANSWERS REQUIRED

(f) 1st. Such balances may be carried forward from month to month, in which case the debit balances should be shown on the monthly balance sheet under deferred charges and the credit balances under deferred credits. They may be disposed of at the close of the fiscal year as follows: Some of these balances apply to shipping, selling and general administrative expenses, as well as to expense burden. Ascertain the proportion of each balance which applies to one or more of the non-manufacturing departments and transfer such portions to the shipping, selling or general administrative expenses, as the case may be, by means of a journal entry. The adjusted balances together with those which apply to the manufacturing department only may be transferred to adjustment of estimated manufacturing expenses account, the balance of which should be closed into profit and loss. This balance may be merged with the manufacturing expenses when compiling a yearly statement of production costs. 2nd. In case of overtime the excess charges resulting therefrom, as disclosed by such operating accounts as are affected by overtime, should be transferred to overtime of production centers account. The next step is to transfer to the non-manufacturing expense accounts (shipping, selling and general administrative), their proportions of the balances which involve such accounts. The adjusted balances, together with the balances which apply exclusively to manufacturing, may be distributed over the production orders according to the "supplementary rate" method.

(g) It would show a credit balance unless certain production centers were operated less than their normal working time to an extent sufficient to offset the overtime worked by other centers. If no centers were operated less than their estimated normal running time during a month but if some or all of them were operated more than their estimated normal running time, the estimated manufacturing expenses account would show a credit balance, unless an overtime rate for each center is established and an overtime of production centers account kept. It could be disposed of in two ways: 1st. It could be transferred to adjustment of estimated expenses account and shown in the monthly balance sheet under deferred credits, especially if it did not amount to very much. 2nd. Determine the cost of

A Problem in the Distribution of Expense Burden

working centers overtime. The aggregate cost should be considerably less than the credit balance referred to, thus showing that too much has been charged to production orders to cover overtime of centers. Deduct the aggregate cost from the credit balance and distribute the difference negatively over the active production orders by means of the supplementary rate. Make a journal entry debiting estimated manufacturing expenses account with an amount equal to its credit balance, crediting manufacturing with the difference referred to (*i. e.*, the excess amount charged to production orders to cover overtime of centers), and crediting the proper operating accounts with the extra amount charged to them on account of working centers overtime.

(*h*) Ordinarily the total number of hours charged to production orders to cover the direct services of operatives during a month would not agree with the hours charged to production orders to cover the time of production centers during the same month. If one operative tends six automatic machines the six machines may work fifty-four hours while he works nine. On the other hand, six operatives may be engaged in assembling and fitting, and the floor space allotted to this class of work constitutes a production center. In such a case the center might be operated nine hours while the operatives engaged in that production center were working an aggregate of fifty-four hours. Again, an operative might devote 20 per cent of his time to making ready and cleaning up, thus the center he operated would work 80 per cent of his working time.

Several operatives might be engaged in working one production center; *e. g.*, several men might be engaged in mixing ingredients for which a particular space or vat is provided, or several men might be engaged in feeding to and taking away from a center, or several men might be engaged in tapping an open hearth and pouring the ingots—two centers being involved, etc.

(*i*) \$3.52.

(*j*) By means of an entry charging manufacturing and crediting estimated manufacturing expenses. This entry consists of the total amount of charges to all active production orders to cover services of production centers during the month.

(*k*) \$2.04.

(*l*) \$3.59.

(*m*) \$4.43.

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(n) \$2.30.

(o) Cost of goods in process.

Yes.

Its underlying record is the cost ledger. After all sheets or cards marked "finished" are transferred to the finished goods binder or section the remaining sheets or cards should show by their balances the cost of goods in process. A trial balance compiled from the cost ledger should agree with the balance of the manufacturing account.

(p) If the time worked by production centers conforms to the time worked by their operatives then the detail time records of operators will show hours worked by production centers. In some cases it will be necessary to secure the working time of production centers on each production order by means of a time ticket used exclusively for production centers, separate time tickets being kept for operators. In either case, however, the detail time records may be filed according to the names or numbers of operatives, or the numbers of production centers in case a separate detail time ticket is kept for each production center. At the end of the month the time tickets of each operative or production center, as the case may be, are totaled. The aggregate of these totals will show the total hours worked by production centers during a month—individual totals showing the time worked by each production center.

The hours worked by each operative may be determined from the pay-roll book which is a summary of the time-clock tickets used for showing the time of arrival and departure of each employee. The same information may also be ascertained from the detail time tickets of each operative, which should show an analysis of his time as explained heretofore. These detail time tickets should be filed according to the name or number of each operative, the totals being run off on the adding machine at the close of each month or more frequently if desired.

The additions to power plant building may be determined by referring to the buildings account in the general ledger and thence back to the proper book of original entry. If any item of additions to buildings includes services rendered by employees the debit for such services may be found in the entry distributing the pay-roll at the end of the month, and the details of such charges may be determined by referring to the sheet or card in

A Problem in the Distribution of Expense Burden

the cost ledger kept with the standing shop order number assigned to "additions to power plant building."

Cost of repairs to production centers may be ascertained by reference to the general ledger account headed "reserve for repairs to production centers." Repair work done by outsiders will be charged through the purchase record to reserve for repairs to production centers, and repair parts used will be charged in the entry which distributes the cost of repair parts used as determined from an analysis of requisitions on the storekeeper for repair parts. Repair work executed by employees will be charged through the entry which distributes pay-roll at the end of the month. Details of such charges will be found on the cost sheet or card kept with the standing shop order number assigned to repairs to production centers.

The cost of lost time will be shown on the debit side of lost time account in the general ledger as at the close of the month. This debit comes from the entry which distributes pay-roll at the close of the month. Details of lost time will be found by referring to the sheet or card kept with the standing shop order number assigned to lost time, and thence back to the employees' time records or to the analysis of lost time, if one is kept.

The cost of direct labor chargeable to the different production orders and standing shop orders may be found in the monthly entry which distributes pay-roll. The details will be found by referring to the active production orders and standing shop orders and thence back to the weekly or monthly summary sheets which are made up from the detail time records of operatives, which show the amount of time devoted by each operative to each active production order and each standing shop order. Of course, the original record for the time of operatives is represented by the time tickets.

The cost of raw materials used may be determined from the credit side of raw materials account, and also from the monthly entry which transfers the cost of raw materials used to manufacturing account. The details will be found by reference to the cost sheets or cards in case material requisitions are posted directly to the production orders. If they are first entered on summary sheets, one for each production order, then of course the details will be found on such summary sheets. The original records are, of course, the material requisitions.

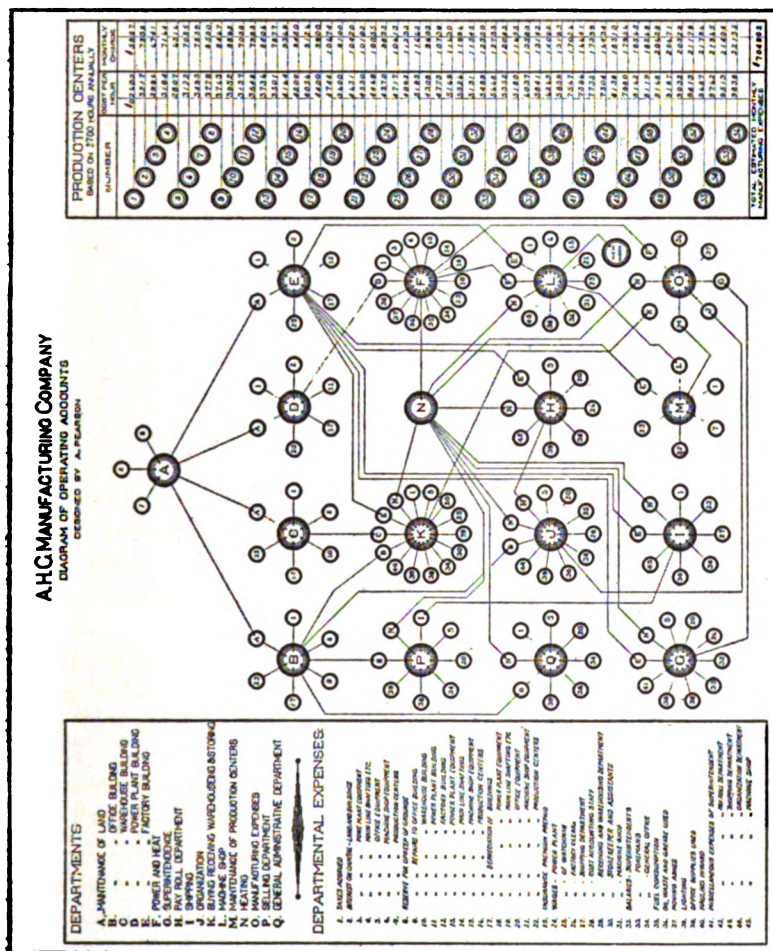
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The quantity of fuel consumed by the power department is determined from the engineer's reports of fuel used. The cost per unit of fuel used is determined from the stock record, and the determination of the cost of fuel used is a simple arithmetical operation. The amount charged for fuel consumption may be found on the debit side of fuel consumption account after the monthly entries are posted.

Reports from the department which handles the last process in manufacturing show what goods are finished and when they are finished. As soon as the accounting department is informed that a given production order is completed the cost sheet or card kept with that production order is marked "finished" and the date. All sheets or cards thus marked are removed from the cost ledger after monthly costs are determined and the aggregate of their totals is used in the monthly journal entry which debits finished goods and credits manufacturing. Therefore, the debit side of finished goods account will show the cost of finished goods each month. The summary of completed production orders will show the details of this amount, and further details may be determined by going back to the cost sheets or cards where the details concerning the three elements of production factors are recorded.

The cost of goods sold may be determined by reference to the cost of goods sold account or to the credit side of finished goods account. In the stock record is kept an account with each kind of finished goods—showing both the quantity and cost. Either each bill is costed, or the sales of each commodity are recorded on summary sheets in order that the total quantity of each may be determined at the close of a month. In this way the total cost of goods sold is determined either daily or at the close of each month and this total is used in making the journal entry which debits cost of goods sold and credits finished goods.

A Problem in the Distribution of Expense Burden



The diagram of operating accounts submitted herewith is the work of Mr. A. PEARSON, a student of the School of Commerce and Finance of Boston. Mr. PEARSON shows the expense burden for April (\$7,049.42) distributed over fifty-six imaginary production centers, in order to illustrate that the monthly expense burden will be entirely absorbed if all centers work their normal time. Of course the hourly rates are out of all proportion to what they would be under practical conditions, but serve for purposes of illustration.

Account Analysis in Commercial Banks*

BY HARWELL CLOUD THOMPSON

Account analysis in a bank means a distribution of earnings and of expenses to individual deposit accounts in such a manner as to show the amount of profit or loss on any account.

The method of analysis is (1) to reduce to units the earnings and expenses of the bank and (2) to apply these units to the deposit accounts under analysis. Examples of such units are the amount of earnings per annum on a dollar of net deposits, the average cost of collecting an out-of-town cheque deposited, and the average cost of paying and charging a cheque drawn on the bank. Cost units are determined by dividing the whole cost of a given operation for a given period by the number of times that operation was performed during the period. They are not determined by estimating the cost of the operation in a limited number of instances, for the reason that errors in the estimate would be so increased by multiplication that the analysis would be invalidated.

It is apparent that this method of analysis is practically a system of cost accounting, inasmuch as it includes classification of expenses, computation of unit costs, and determination of profit or loss on individual accounts. The terms "cost system" and "account analysis" are both in use to describe the same general operation, and it seems that no distinction in meaning is made. The term "account analysis" is preferable because it is used by most banks which have such a system and because it is more indicative of the special work involved than the more general term of cost accounting. Account analysis, therefore, should be considered a subdivision of cost accounting.

The subject of account analysis is new. A few banks in the large cities have analyzed accounts for a number of years, and most of the large banks in these cities now have more or less fully developed systems. Outside the important financial centers very few banks have made any attempt at systematic analysis. The methods in use are still being improved to secure more accu-

* A thesis for the degree of bachelor of arts in business administration, University of Illinois.

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rate results at less cost. There is little literature on the subject. Mr. F. W. THOMAS of Toledo, Ohio, has published a concise treatise in a booklet entitled *Cost Accounting in a Bank*. Mr. GEORGE O. BORDWELL of the First National Bank of San Francisco has issued a pamphlet, *The Analysis of a Bank Account*. Other articles and addresses have appeared in various banking journals, particularly the *American Banker*. The subject is sufficiently large and important to necessitate a volume for adequate treatment.

The purpose of this paper is: (1) to show the value to a bank of a system of account analysis, (2) to outline the principles and methods of a proper allocation of earnings and expenses to individual accounts, and (3) to indicate how the results of analysis may be utilized.

VALUE OF ACCOUNT ANALYSIS

Analysis of accounts establishes a basis for an equitable adjustment of the relations between bank and depositor. The bank serves its depositors in some or all of the following ways: (1) by receiving deposits, (2) by safekeeping funds, (3) by paying cheques, (4) by paying interest on balances, and (5) by rendering incidental services varying from issuing drafts to giving advice. The compensation of the bank is in the use of the funds of its depositors. This compensation has little direct relation to the cost of the services rendered. While the bank makes a reasonable profit on its business as a whole, the reason may be that a loss on some accounts is more than balanced by a large profit on others. A depositor may even withdraw funds before the bank can collect the items deposited, the bank thus actually supplying free capital to the depositor as well as free service in handling his account. Analysis shows the cost of the service rendered by the bank as a basis for a fair adjustment of the terms upon which an account is carried. How such an adjustment may be made will be considered later.

Account analysis protects banks and public against the danger of unintelligent and destructive competition. Such competition seldom exists in small communities, where personal relations are a determining factor in getting business. In the large cities, however, competition for accounts has been carried on by con-

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cessions as to terms; the rate of interest allowed on deposits has risen to a point in many cases unprofitable, and in some dangerous, as exerting pressure toward investment of funds at higher rates than consistent with entire safety. This competition takes forms other than high interest rates, for example, heavy investment in imposing bank buildings, expensive advertising, low requirements for opening new accounts, and extension of lines of credit to hold deposit accounts. Some of these forms are doubtless unprofitable. The well managed bank of the future must depend upon numerous small and carefully figured profits and few if any actual losses. The best remedy for uneconomical competition is an accurate knowledge of costs, for few banks would offer concessions which are known to be unprofitable. A knowledge of costs, on the other hand, fosters competition in lowering costs, *i. e.*, in efficiency of operation.

Thus a third advantage of analysis is the facility it affords through cost units of checking the efficiency of departments and of determining by comparisons whether or not costs are too high.

ALLOCATION OF EARNINGS

The purpose of an allocation of earnings is to determine the gross earnings on any deposit account. Therefore all earnings of the bank distinct in their origin from deposit accounts are excluded from the allocation for analysis purposes. Interest on United States bonds used to secure circulating notes of national banks, earnings of bond and foreign exchange departments, and rentals from vault or office space are examples of earnings which should usually be excluded. The largest items included in the analysis are interest on loans and income from investments in bonds and stocks. The former item should be so computed by adding accruals and subtracting prepayments that the actual amount earned during the period is obtained. The actual yield on bonds should be obtained either by reference to a bond table or by amortization.

The figures of a condensed balance sheet and statement of earnings will be useful as an illustration for various steps in the analysis.

Account Analysis in Commercial Banks

BALANCE SHEET *

Resources

Demand, time, and real estate loans	\$ 62,074,000
Bonds and stocks	26,838,000
Cash and exchange (including transit)	16,785,000
	<hr/>
	\$105,697,000
	<hr/>

Liabilities

Capital stock, surplus, undivided profits, and reserves	\$ 15,686,000
Deposits	90,011,000
	<hr/>
	\$105,697,000
	<hr/>

STATEMENT OF EARNINGS †

FOR THREE MONTHS ENDING ———

Interest and discount on demand, time, and real estate loans	\$1,000,000
Yield on stocks and bonds	400,000
Interest on balances in other banks	30,000
	<hr/>
	\$1,430,000
	<hr/>

The first allocation of earnings is between capital funds and deposit funds. Obviously deposit funds have earned only a part of the \$1,430,000, the remainder being due to the investment of capital, surplus, undivided profits, and reserves, which collectively constitute capital funds. Mr. THOMAS in his system proposes no division of this nature, but treats interest on capital at an arbitrary rate as a general expense to be apportioned among accounts. If the object of the analysis is to show actual profit or loss, Mr. THOMAS' method cannot be followed: it is impossible to draw an actual distinction between the earning rate of deposit funds invested in bonds or loans and capital funds invested in the same manner.

Inasmuch as the item of cash and exchange including transit is held against deposits, only \$90,011,000 less \$16,785,000, or \$73,226,000, of deposits enters into loans, bonds, and stocks. Capital funds constitute the remaining \$15,686,000 of the total investments of \$88,912,000. Capital funds therefore claims

* From published statement of Ill. Tr. & Sav. Bk., Chicago, April 5, 1918.

† Assumed to illustrate above balance sheet. Earnings not to be allocated are omitted from statement.

$\frac{15\ 686\ 000}{88\ 912\ 000}$ of the earnings from investments of \$1,400,000 or \$247,000. To deposit funds is due the \$1,153,000 balance of earnings from investments plus the \$30,000 interest earned on bank balances held against deposits. The total earnings of deposit funds for the quarter are therefore \$1,183,000. If a portion of capital funds were invested otherwise than in securities, that portion would be deducted before apportioning the earnings on those securities. For instance, had the balance sheet shown an item of \$5,000,000 for banking house only \$10,686,000 of capital funds would have remained to share in the earnings on investments. In short, the balance sheet must be analyzed to discover the proper basis of allocation between capital funds and deposit funds.

The unit of earnings to be used in analysis of individual accounts is the per cent per annum on net balances. Deposits as they appear in the balance sheet are gross; the account of each depositor shows his gross balance. A portion of gross deposits is always represented by cheques which have been deposited and sent out for collection, but which have not yet been realized. This portion of deposits appears among the assets on the balance sheet as transit; no earnings accrue thereon. Net deposits are gross deposits less the amount outstanding in process of collection, i. e., less transit. The net balance of each depositor is his gross balance less uncollected items which he has deposited. Since net deposits only bring earnings, the earning rate must be computed on net rather than gross deposits. In the illustration used above, transit is assumed to be \$5,000,000. Net deposits are then, \$85,011,000, and earning rate on net deposits,

$\frac{1\ 183\ 000}{85\ 011\ 000}$ or 1.4 per cent for the quarter. The rate per annum is four times 1.4 per cent, 5.6 per cent.

It is important in allocating earnings between capital funds and deposit funds and in computing earning rate on net deposits that averages for the period be used exclusively. The ratios which exist on one day are not adequate for a valid apportionment covering a three months' period. The averages need not be carried out to accuracy in cents; a computation using four or five digits would be practically sufficient.

The earning rate on net deposits is to be applied to average net balances of the deposit accounts under analysis. Average

Account Analysis in Commercial Banks

net balance of any account is average gross balance less average amount outstanding in process of collection. An average gross balance is readily obtained by running off daily ledger balances on the adding machine, listing each balance for as many days as it remained unchanged and dividing the total by the number of calendar days in the month; average gross balance of any account upon which interest is paid can be obtained from the interest clerks. The average amount of outstanding items is usually computed by the transit department. A record of all out-of-town items is made for analysis purposes as the items pass through the transit department; the clerks, knowing the number of days required to collect items on any point, make proper entry before the items are sent out. A typical form for this record appears on page 216.

The application of the earning rate on net deposits to the average net balance gives the gross earnings of any account.

The practice of banks as to the period of time upon which the earning rate is based varies. The two bases are: (1) the average rate for a long period of years, and (2) the average rate for the period just past—a month or a quarter. The first basis is designed to eliminate the effect on the results of analysis of periodical fluctuations in interest rates; the second is designed to take account of these variations.

The theory of the fixed rate (first basis) is that all accounts are to be put on a "permanent" basis, that the accounts themselves are expected to be permanent and that an arrangement can be reached under which, without readjustment, an account will yield a fair profit for a long period of years, although single years might show either a loss or a large profit. While a degree of permanency in adjustment is desirable, the theory of the "fixed" rate is open to criticism: (1) a considerable number of accounts are not retained through the long period of years; (2) other elements in the analysis are subject to variation so that the use of a fixed earning rate does not as a matter of fact furnish a basis for a permanent adjustment.

Analysis on the basis of the average rate for the period just past is intended to show the actual profit or loss for that period. The results are not an absolute standard either for a permanent adjustment or for adjustment a year in advance, inasmuch as conditions are constantly changing; however, since adjustment is

[illegible]

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a matter of judgment and usually of agreement, the results of a previous period are a very practical guide.

The present practice in analysis is to base earning rate on loanable funds rather than net deposits. The loanable funds of every account analyzed are computed by deducting from net deposits the proportion of reserve held. This step is unnecessary, inasmuch as the earning rate may be applied directly to net balance, the rate merely being lower in proportion to the percentage of reserve carried. In cases where a portion of reserve is on deposit, say at two per cent, in other banks, earnings thereon are added to earnings on loanable funds to show total earnings of the account. This operation may be avoided also by basing the rate on net deposits, because the item of interest on balances in other banks was included in computing that rate. For illustration both methods of computing earnings for a month on an account are shown below:

(1) Using earning rate on loanable funds:

Average net balance	8,000
Less 40% reserve	<u>3,200</u>
Loanable funds	4,800
Earning rate (assumed as 6% per annum) per month.....	<u>.0050</u>
Earnings on loanable funds	24
Earnings on 15% carried in other banks at 2%	<u>2</u>
Gross earnings	<u><u>26</u></u>

(2) Using rate on net deposits:

Average net balance	8,000
Earning rate (equivalent of 6% on loanable funds plus 2% on deposits of 15%) .039 per annum per month	<u>.00325</u>
Gross earnings	<u><u>26</u></u>

The indirect method might have the advantage of being more readily comprehended when analysis records are submitted to depositors.

The earning rate on loanable funds is sometimes obtained by averaging the rates of yield on loans, weighting each according to the time and amount of the loan. The rate is computed monthly on the basis of the investments made during that month. This rate, therefore, does not represent the actual interest earnings for the month because loans made in a previous month remain unpaid and loans made during a current month run over

into following months; it is useful, however, as an indicator of the work done by loaning officers.

ALLOCATING OF EXPENSES

The most difficult problem of account analysis is to determine the portion of expense which is properly assignable to each deposit account. It is evident from the diverse nature of the expenses of a bank that a single basis for their apportionment would be impossible. A grouping of charges in accordance with their origin and a separate basis of apportionment for each group is necessary to secure accurate and scientific cost units. The practical difficulties of such a grouping and apportionment have kept most banks from carrying their account analysis farther than income analysis, plus a few of the more direct costs, such as interest paid on balances, cost of handling certain classes of items, etc.

Mr. THOMAS has included all expenses in his analysis, classifying them as clerical and general. Clerical expense after adding twenty-five per cent of general expense is apportioned on the basis of the number of items handled; the remaining seventy-five per cent of general expense plus interest on capital at six per cent is assessed according to balances. This method has the advantage of simplicity, although at some cost in accuracy of results.

Mr. GEO. O. BORDWELL of the First National Bank of San Francisco has suggested eleven groups for the classification of expenses, with a separate basis of apportionment for each group. Mr. BORDWELL has a successful system of analysis in operation at his bank, yet it does not appear that an eleven-fold division of the expense account is a part of this system.

The problem demands the exercise of judgment as to the amount of work justified to secure greater accuracy—as to what point would mark the intersection of the ascending curve of labor with the descending curve of increase in accuracy. It must be remembered that very imperfect analysis may be more perfect than the application of the results after they are obtained. On the other hand, since the cost units obtained will be applied to all accounts analyzed for months or even years before the same units are recomputed, the work should be carefully done. Again, the units must be accurate if they are to be of value as indices of departmental efficiency.

Account Analysis in Commercial Banks

The following grouping is now proposed as a classification which is both practicable and accurate:

Group 1. Expenses incident directly to specific accounts, such as interest paid on balances.

Group 2. Expenses dependent upon the activity of accounts, such as expenses of transit department, and reducible to per item costs.

Group 3. Expenses dependent upon the size of net deposits, such as costs of loaning funds, and to be apportioned on the basis of net balances.

Group 4. General expenses not dependent upon deposit accounts.

Groups 1, 2, and 3, the expenses directly chargeable to an account collectively constitute operating charges. The deduction of these charges from gross earnings will show the gross profit or gross value of a deposit account. This value Mr. BORDWELL terms marginal value and defines as the amount of income from an account which would be lost to the bank were the account closed. Group 4 includes administrative or overhead charges. The deduction of a proper proportion of these charges from the gross value of an account will leave its net profit or net value. Mr. BORDWELL's term is average value, which he defines as the amount of earnings in excess of the amount necessary to pay the expenses directly chargeable to the account, its proportion of general or overhead expenses, and its proportion of interest on capital.

The two valuations of an account are adopted so that the analysis will show two things: (1) whether or not the account pays for the expense of handling, (2) whether or not besides paying its own way it contributes a proper share toward the overhead expenses of the bank. Any account which shows a gross value meets the first test; and any account which shows a net value fulfills the second. As a matter of policy, all accounts which have a gross value are to be retained, because the overhead charges go on in any case; at the same time an effort will be made to bring all accounts to a point where they will not show a net loss.

The terms "gross earnings," "operating charges," "gross profits," and "net profits" are borrowed from an ordinary income statement, and are employed because there is no essential

difference in the nature of such a statement and a statement of the same facts in connection with a deposit account in a commercial bank. The use of uniform terminology should aid in making clear the significance of the analysis record.

The expenses of group 1 cannot be reduced to cost units; they are charged directly to the deposit account for which they were incurred. The most important item in the group is interest paid; collection charges not paid by the customer, cost of preparing special customers cheques, etc., should also be charged.

The expenses of group 2—i. e., those dependent upon the activity of accounts—must be reduced to per item units. Since the costs of (1) paying and charging a cheque drawn on the bank, (2) receiving and collecting a cheque on another local bank, (3) receiving and collecting an item on an out-of-town bank are different, accurate analysis requires that separate units be computed. At least two per item costs should be used, one for out-of-town or "transit" items, which cost from two to three cents to handle, and one for local or "clearing house" items, which cost only a fraction of a cent. The costs of handling a local item on another bank and an item drawn on the bank are nearly the same; these two classes of items may therefore be grouped without involving any great inaccuracy.

The following expenses enter into the cost of handling all items:

- (1) Salaries and surety bonds of tellers and assistants, including mail tellers.
- (2) Salaries of keepers of individual ledgers.
- (3) Postage, stationery, and other supplies for these employees.
- (4) Portion of expenses for maintaining banking quarters: rent, heat, light, janitor service, fire insurance, depreciation on furniture and fixtures and on adding machines, telephone, and telegraph.

Division of the total of these expenses by the total number of both clearing house and transit items handled during the period gives a unit cost per item which is an element in the per item cost of both transit and clearing house items.

By dividing the expense for clearing house facilities (clearing house assessment, salaries of clerks, and fines) by the sum of

Account Analysis in Commercial Banks

the number of items sent to and received from the clearing house, the unit cost for the clearing house operation is obtained. The sum of this unit and the one previously determined is the per item cost for clearing house items which will be used in analysis of accounts.

The following expenses should be totaled and divided by the number of items handled by the transit department:

- (1) Salaries, postage, stationery, and other supplies, of the transit department.
- (2) Portion of the expenses as listed above for maintaining quarters.

This unit plus the element first determined above gives the per item cost of transit items.

The charge for per item costs on any account is computed by multiplying the number of items of each class (transit and clearing house) handled during the period of the analysis by the proper units.

The expenses of group 3 are apportioned according to net balances. The expenses of this group include:

- (1) Salaries and surety bonds of officers and employees in discount and credit departments.
- (2) Legal expenses in loaning funds.
- (3) Stationery, postage, other supplies, and portion of expense for maintaining quarters.
- (4) Burglary and "hold-up" insurance.
- (5) Watchmen's salaries.

The expenses (1), (2), and (3) above must be apportioned between capital and deposit funds in the same manner as earnings were apportioned: the same principles which apply to earnings on loans apply also to expenses in making loans. The expenses (4) and (5) are incident to net balances, since they are incurred for the protection of the reserve held against these balances.

The expenses of group 4 include:

- (1) Organization expenses.
- (2) Salaries and surety bonds of administrative officers.
- (3) Cost of analysis department.
- (4) Advertising, donations, subscriptions.
- (5) Charges for bank examination.

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- (6) Portion of expenses for stationery, supplies, postage, and maintenance of quarters not otherwise assigned.
- (7) Taxes (except U. S. tax on circulating notes).
- (8) A sum sufficient to bring the total net profits of the bank up to a proper rate on capital invested. This rate is arbitrarily taken, and should be sufficiently high to pay dividends and leave a margin for increasing surplus so that the bank may gain in strength.

The basis of apportionment for those general expenses should be either net balance or operating cost. If all expenses incident upon operation, including salaries of officers engaged in supervising the various departments, have been included in groups 1, 2, and 3, the administration charge should be based on net balance. If not, then operating cost would be a proper basis.

The results of account analysis may be conveniently recorded on the following form:

FIRST NATIONAL BANK	
ACCOUNT ANALYSIS DEPARTMENT	
Account of John Doe, 1 Main Street	Analysis for month of January, 1913
Gross earnings	\$26.00
Average gross balance	10,000
Average amount outstanding	2,000
	<hr/>
Average net balance	8,000
Earning rate per month .....	.00325
	<hr/>
Operating cost	23.57
Direct costs	17.67
Interest paid	16.67
Collecting charges	1.00
	<hr/>
Per item costs	3.50
200 C. H. at .055	1.00
100 transit at .025	2.50
	<hr/>
Percentage costs:	
\$8,000 at .0003 per month	2.40
	<hr/>
Gross value	2.43
Administration charge \$6.00 per year per \$1,000	4.00
	<hr/>
Net value, loss of	<u>\$ 1.67</u>

This form is sometimes printed on a sheet with the form used for computing the average amount outstanding in process of col-

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lection in order that the whole analysis will appear on a single sheet.

A summary record of analysis should be filed for reference at the desk of the officer who conducts relations with the depositor. A card system, using form on page 224, shows the necessary facts:

METHODS OF SAVING LABOR IN THE ANALYSIS DEPARTMENT

An objection urged against account analysis is that it would require too much time and expense. The answer is that a system of analysis should be adapted rather than adopted; it should be adjusted to the organization of each bank so that the system already in use will supply most of the necessary data. Unnecessary work must be avoided. Experience has shown that analysis is practicable when properly done.

In the first place, no account should be analyzed unless the results are needed. Analysis should be made in the following cases:

- (1) When requested by an officer of the bank.
- (2) When upon superficial examination the value of an account is doubtful.
- (3) New accounts, in order that readjustment of terms may be made if necessary.

Part analysis is the determination of part of the data of a complete analysis. It should be used when complete data is unnecessary to show the account either satisfactory or hopelessly unprofitable.

Periodical analysis is complete analysis applied at intervals. Accounts of all country banks should be analyzed periodically to indicate any change in their value.

Analysis for a period of a month is customary. A period of two, three, or more months can be included at one operation, thus saving the monthly computations.

Earning rate on the fixed basis is computed only once in a number of years. If the "actual" basis is used, the rate may be determined once in three months, or—if the rates are steady—once in six months.

A part of the detail of determining the average amount outstanding may be avoided by finding the average number of days

FIRST NATIONAL BANK

Account of

Account Analysis Department

Date_

[illegible]

Account Analysis in Commercial Banks

all items of a given account are outstanding. This average is applied to the total amount of transit items deposited, and the result divided by the number of days.

The costs units may be computed at intervals of a year or longer. One large bank has used the same units since the organization of its analysis system seven years ago.

The subdivision of the expense account by departments facilitates the determination of cost units. Thus separate accounts may be set up in the general books for expenses for (1) tellers, (2) bookkeepers, (3) clearing house facilities, (4) transit department, (5) loan and credit departments, (6) maintenance of quarters, and (7) overhead charges. Postage, stationery, and other supplies should be kept on hand and delivered from store only upon departmental requisitions. These requisitions are data for making the charges to the proper expense accounts. An expense ledger with a controlling account in the general ledger is suggested for very large banks. Such a requisition system and expense ledger make possible greater control over expenses of departments as well as greater facility in determining cost units.

The counting of items may be made either the most onerous or the easiest part of the analysis, according to the methods used. It is necessary to know: (1) the number of items of each class deposited by each customer, (2) the number of cheques paid for each account, and (3) the approximate number of items handled by each department. Deposit slips for local customers and remittance forms for correspondent banks providing for a separate listing of each class of items and a numbering of each list automatically determines the number and class of items received on deposit day by day from each customer. A monthly summary gives complete data. The number of cheques paid is readily determined from the cancelled vouchers for the period, either by reference to the serial numbers on the cheques or by actual count. The number of items handled by departments should be counted automatically as they go through the adding machine by an attachment for that purpose. Test counts for a single day taken several times a month would be sufficient to establish a working approximation of the number handled.

For a shorter method of analysis the percentage units (1) earning rate on net deposits, (2) percentage cost on net deposits, and (3) administration charge (if based on net deposits) may be

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combined and the resultant applied instead of the separate percentages.

The place of account analysis in the organization of the bank varies in different banks. Usually the work is directed by one of the department heads such as the transit manager or the general books. The working force required is small: one man does all account analysis in a large Chicago bank with the exception of computing the units; in another large bank the work is done by five junior transit clerks during spare time.

UTILIZING THE RESULTS

The final question in account analysis is what application to make of the results. This question will be considered under three headings: (1) altering relations with customers, (2) checking efficiency of departments, and (3) preventing destructive competition.

A very useful discussion of the application of a knowledge of costs to altering relations with customers is contained in Mr. THOMAS' booklet. He points out that tact and discretion are required in approaching a customer whose account shows a loss. The unprofitable condition may be only temporary—caused, for instance, by low interest rates or by a seasonal reduction in the balance kept—and certain to rectify itself without action by the bank. Or the loss shown by the analysis sheet may be more than offset by the advertising value of the account of an influential man or firm. In this case if there is no probability of securing a larger balance by broaching the subject of analysis results, such action would be unwise. Small special accounts kept for convenience by the owners of profitable regular accounts obviously should not be questioned. A valuable asset of any bank is the goodwill of all interests in the community, "moneyed" and "unmoneyed." Every customer likes to think that the bank values his account, no matter how small it is, and any disillusionment is not unlikely to be resented.

Yet in approaching a customer who is able to keep a paying balance and who does not, the bank is protected by the customer's own sense of fairness and self-respect. Actual figures showing that the account costs more than it earns will probably bring forth a larger balance; few customers of this class will wish to

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continue to "sponge" after their attention has been called to the fact that their accounts are the cause of loss to the bank.

The request for a larger balance may be made either by letter or in person, preferably by some official well acquainted with the customer. It should always be accompanied by the analysis and an estimate of how large an increase in balance is necessary to make the account profitable. Mr. THOMAS suggests the use of the following letter:

Mr. John Doe, President,
First National Bank.

My dear Sir:

In looking over the reports of our analysis department, I find that the volume of your out-of-town business has shown a progressive increase for some months past, and while I am indeed pleased to note this evidence of your increasing business, I feel obliged to call your attention to the bearing this has on the arrangement now in force with your bank.

The enclosed analysis of your account for the past three months shows that the cost to us of handling your growing out-of-town business has reached a figure which makes the balance originally agreed upon entirely inadequate to meet the present conditions.

I assure you that we keenly appreciate your business, the more so because of the many years of cordial relations that we have enjoyed with you, but I believe, in view of the increased cost of handling your account, that an increase of \$75,000.00 in the net average daily balance of your account is necessary in order to put it on a mutually equitable basis, and trust that you will agree with me as to the fairness of this request.

Thanking you in advance for your consideration, and awaiting an expression of your view in the matter, I am, with kind regards.

Very truly yours,

RICHARD ROG, President.

The same purpose may sometimes be better accomplished by an alteration in the collection facilities furnished by the bank than by an increase in balance. The deposit of a smaller volume of out-of-town items for collection at par or a reasonable exchange charge for such items might easily be arranged. The depositor would not be adversely affected if he in turn readjusted matters with his customers so that he would not receive such a volume of out-of-town cheques at par. Prompt instead of deferred depositing might be sufficient to turn a small loss into a profit.

A third possible adjustment is in interest payments. Many bankers are advocating \$200, \$500, or even \$1,000 as a minimum balance upon which to pay interest. A simple solution of the

problem of an unprofitable interest bearing account would be an agreement to credit interest only on average balance in excess of a stated minimum. A reduction of the customary rate of two per cent or a variable rate as is used in England would accomplish the desired result.

It is suggested also that the customer's line of credit be made a function of his average balance. The advantages to the bank of such an arrangement would be (1) an equitable basis for apportioning loanable funds among borrowing depositors and (2) an increase in deposits. The advantage to the customer would be his ability to extend his line of credit within reasonable limits. This proposal is discussed by Mr. SIMMS in an article in *The American Banker*.

The ultimate solution of the problem of the unprofitable small account will be a charge for its care. This has been the practice in England for a long time and the custom has become so universal that it is not looked upon as unusual or improper. The plan is in successful operation in several large New York banks. The Corn Exchange bank charges \$1.00 per month for the care of accounts having an average balance of less than \$200. Mr. NASH, the president, says of the plan: "We have found it to have resulted in no permanent diminution of our total deposits. The first result was a loss of a very considerable number of depositors, nearly all of whom were worthless to the institution as far as profits were concerned, but their aggregate balances were fully compensated for by the additions which the small depositors who desired to continue their accounts, but who wished to avoid the charge, made to their balances."

A similar plan has been adopted, with satisfactory results, by the Title Guarantee and Trust Company. In country banks the conditions are such that for the present the plan cannot be adopted, but with the better education of both bankers and public the time will undoubtedly come when it will be possible to put such an arrangement into operation.

The second use for the facts of analysis is in checking the efficiency of departments. While this use is secondary to that of altering relations with customers, the statistics required for the latter purpose lend themselves so readily to the former that the opportunity to use them thus should not be lost. The method of segregating expenses by departments has already been indi-

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cated, also the method of reducing the total costs to unit costs. The tests of efficiency can be carried to any degree of detail by a mere minute classification of expenses.

The value of cost statistics is cumulative with their multiplication. A single fact about cost is of little significance unless it can be compared with other similar facts in order to note the differences. Thus to make use of the cost units obtained in analysis work a careful comparison should be made with the same units for previous periods. Any marked increases should be located by discovering what items of expense are larger, and checked if not due to proper causes. The general adoption of cost and analysis system by commercial banks will result in comparisons between institutions: the officers who are successful in organizing their departments so as to secure the lowest costs without sacrifice of other considerations will be called to fill more important positions, while their methods will be studied and applied in other institutions. Inefficient officers, on the other hand, will be displaced.

The final application of the facts of account analysis is to the competitive struggle. With cost systems in operation, un-intelligent competition will become impossible. The striving for more deposits even at the cost of a part of the bank's earnings will be replaced by a rational competition for paying accounts and for economy of internal operation. Rational competition will bring to the profitable customer the concessions which the value of his account justifies. The small depositor will be required to pay the cost of the facilities he receives. The bank will be assured of a reasonable margin of profit on every account.

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EDITORIAL

C. P. A. Examinations in New York

"There were 134 candidates who took the C. P. A. examination, six of whom have passed in all topics." Such is the reply of the New York state education department to an inquiry relative to the outcome of the examination held in June last. The failures amounted to over 95 per cent. True, this is a slightly higher percentage of failures than usual and in order to secure a broader viewpoint let us look at the figures for the last two years each of which comprises two examinations. Here they are:

Year	Total sitting	Total passed	Percentage failures
1912	204	35	82.9
1913	220	29	86.8

As far back as 1908 Mr. James G. Cannon analyzed the results of the examinations held up to that time, and criticized severely the paucity of the results attained under the New York C. P. A. law. Other criticisms have been voiced in this JOURNAL and in other quarters but no remedy has been applied nor does the state education department seem to have made any serious efforts to discover the reasons for a condition that is, to say the least, regrettable.

Editorial

There are, we think, two main causes that have contributed to the very large percentage of failures in the New York C. P. A. examinations. In the order of their relation, although not necessarily in that of their importance, they are (*a*) the lack of education and training upon the part of the applicants and (*b*) the character of the examinations.

It is obvious that a large proportion of the candidates who sit for this examination must undertake it without proper preparation. While no doubt many of the applicants offer themselves for the examination without any professional school training there are in the city of New York a considerable number of schools offering courses promising to fit students for the C. P. A. examination and it is generally reported that full classes are in attendance. A large proportion of the applicants come from these institutions and while good work is done in many of them the results noted above do not indicate uniformly high standards of teaching. Bluntly speaking, it would appear that some of the schools giving accounting courses are more successful in getting tuition fees than they are in securing creditable teaching results.

As to the form and contents of the examination itself, it is perhaps sufficiently indicated by pointing out that applicants are required to pass but one examination, covering a total of fifteen hours only, and that they are eligible thereto after but one year's experience in an office of an accountant. Even assuming that a candidate is so fortunate as to get into the best accounting office to be found, it is futile to expect him to acquire a knowledge of the practical work of his profession within that period sufficient to enable him to pass a proper final examination. The experience qualification should be lengthened to not less than three years and this period should be spent in actual—not merely nominal—accounting work.

There should, however, be two examinations. The first should be taken when the candidate has completed his school work for the purpose of testing his knowledge of the theory of his profession and also of the subject of commercial law. These can be mastered in a good school and a student is entitled to an examination therein as soon as he has completed his school work. Having successfully passed this preliminary examination a candidate should set about getting the practical training, which in the pres-

ent development of the accounting profession at least, can be had only in an office conducting a general practice. After a suitable period he should be admitted to a final examination in accounting subjects of sufficient breadth and thoroughness adequately to test his professional knowledge.

For the information of our readers we publish elsewhere in this issue the full text of the June, 1913 New York C. P. A. examination questions and we invite comments thereon with a view to crystallizing professional opinion upon the many vexed points relating to examination in all the states.

Union of Californian Societies

A brief announcement in the preceding issue of this magazine to the effect that the accountants' societies in California had amalgamated will have been read with much interest by everyone who is familiar with the history of the profession on the Pacific coast. It is cause for the utmost gratification that a long existing division of energies has been terminated by a common desire to work together for the welfare of the profession.

California like some other states in the west is blessed—or otherwise—by the existence of great distances between the principal towns; and, as a consequence, much difficulty is encountered in the holding of meetings and in the general corporate work of societies having state-wide membership.

Missouri was another case in point, but after long effort and discussion a system of chapters was evolved which has worked so far with the utmost satisfaction. Both Kansas City and St. Louis have their individual chapters which are affiliated with the state society and in all matters having relationship to the American Association the state society is the sole means of approach.

In California there have been for some time two societies, the California State Society of Certified Public Accountants (which is a constituent member of the American Association) and the Southern California Society of Certified Public Accountants which has been outside the national body. Repeated efforts were made to bring the two societies together, but various technical details interfered and the division existed much longer than members of either society desired.

Editorial

With the example of Missouri before them, however, members of the California societies have been able to overcome the obstacles in the path of union, and it is with the greatest pleasure that the American Association regards the abolition of all differences between the two societies and will welcome the new members whose names will be proposed at the next meeting of the national trustees.

We congratulate the members of both California societies on their wise action and are confident that the united California society will have a future brighter and more prosperous in every way than would have been possible without fusion of interests.

Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

PROBLEM NO. 21 (DEMONSTRATION)

The following is a balance sheet of The Columbia Traction Company, April 4, 1912, prepared for receivers appointed on said date:

<i>Assets</i>	<i>Liabilities and Capital</i>
Cost of road .....\$2,500,000	Preferred capital stock...\$2,000,000
Cost of equipment 750,000	Common capital stock ... 1,000,000
Franchise 2,000,000	First mortgage 6% bonds
Construction material 70,000	and interest 2,031,250
Construction work 25,000	Taxes accrued 15,000
Cash 37,500	Wages accrued 14,500
Due from other lines 5,000	Salaries accrued 10,000
Notes receivable—allied	Accounts payable 20,664
companies 40,000	Due connecting lines—
Accrued interest on notes	allied 257,860
receivable 250	Notes payable 200,000
Organization expense 100,000	Int. accrued on notes pay-
Injuries and damages dur-	able 3,150
ing construction 50,000	Surplus 25,326
Total .....\$5,577,750	Total .....\$5,577,750

Estimates made by appraisers and investigations made by accountants reveal the fact that the assets are grossly overstated. The actual cost of the road was \$1,525,750; equipment, \$560,000. The road is now worth, after allowing for depreciation, \$1,200,000; the equipment, \$300,000. The franchise, based on the excess earning power, is valued at \$2,200,000. The construction material is worth the book figure. The construction work contains about \$3,000 of night work paid for at double-time rates. The accounts and notes receivable are good. Organization expense and injuries and damages will of course be worth nothing in liquidation.

In view of the fact that the franchise was a valuable one and liquidation would prove so disastrous to the stockholders, the receiver was authorized to continue the operations and to issue \$500,000 of receiver's certificates bearing interest at 5 per cent.

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These were issued as of May 1st and sold at an average price of 97½. The proceeds were expended for new equipment to the extent of \$400,000, while \$50,500 was used to pay off notes payable and interest.

During the period from April 1 to June 30, 1912, the operating income was \$536,732.15; the operating expense, \$302,517.64. Of the operating income, \$125,417.82 was from other lines, on account of which and previous charges the companies paid \$126,286.25. Of the operating expense, \$145,843.29 was through credits to connecting lines, to which \$175,328.15 was paid. The taxes accrued June 30th were \$30,000; wages accrued, \$5,650; salaries accrued, \$8,000; salaries paid, \$27,500. The other expenses paid in cash were \$12,375. The organization expense and injuries and damages are to be written off one-twentieth. The construction work was completed by credits to material of \$7,525 and wages of \$12,436.23.

On July 1, 1912, the company was authorized to increase its capital stock to \$5,000,000 preferred and \$5,000,000 common, and to issue \$5,000,000 of 5 per cent bonds. The proposition made to the bond and stockholders was as follows: holders of receiver's certificates to exchange for 5 per cent bonds; bondholders to exchange for 5 per cent bonds and receive a bonus of three shares of common for each bond; preferred stockholders to receive one share of preferred and one share of common, and pay an assessment of \$10 per share; common stockholders to exchange share for share and pay an assessment of \$22.50 per share. All assented and exchanged except holders of 120 shares of the common.

Prepare the balance sheet of the company after the reorganization.

SOLUTION TO PROBLEM NO. 21 (DEMONSTRATION)

In reading the problem, the second paragraph, which deals with the estimates made by the appraisers, etc., may not be passed over without attention, since it has a decided bearing on the demonstration problem. The information is also essential to the solution to the practice problem which calls for a statement of affairs and deficiency account.

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In the case of the company which forms the subject-matter of the problem a statement of affairs was prepared in order to furnish information to the court on which to decide whether the best interests of creditors would be served by allowing the receiver to continue the business or liquidate it. The decision being in favor of continuation the receiver was authorized to issue certificates for the purpose of raising funds with which to rehabilitate the equipment and afford relief to the more pressing creditors.

It is to be presumed that the court would direct the receiver to adjust the property accounts so as to squeeze all the water out as it were. If the cost of the road was actually \$1,525,750, instead of \$2,500,000, as shown on the books, then obviously the book figure should be reduced. Correspondingly, if \$1,525,750 represents the original cost and after making reasonable allowance for depreciation the replacement cost is but \$1,200,000, a further reduction to this latter figure should be made.

There will here, as always, be a certain amount of discussion as to the propriety of writing up the franchise to put it on the basis of its earning power. The question may well be asked, "How can there be any excess earning power with the company in a condition which warrants the appointment of a receiver?" Obviously the figure is an estimated one, based on probable income from operation and decreased operating expenses under conservative and efficient management. If the estimate has been carefully and scientifically made no objection could be found to writing up the franchise. If the estimate is the result of a haphazard guess or the offhand opinion of someone not qualified or it was the desire of the receiver, as it undoubtedly would be, to be conservative, the franchise would probably not be written up. In fact it would not startle anyone especially if the receiver were to refuse to recognize the franchise as an asset since conservatism is predominant among the rules which guide him. To illustrate this, the receivers for a concern in a recent case refused, in having the statement of affairs made up, to recognize any liabilities except those which had been incurred since their appointment. This presumably on the theory that other liabilities were not operative against the receivers until proof of claim had been filed.

No importance attaches to the statement that the construction work contains night work paid for at double time. It is a mat-

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ter of interest, however, in this connection to note that the high cost of street railway construction work in New York City as compared with other cities is due to the fact that it was done almost entirely at night when the traffic is lighter.

The first step in the solution of the problem consists in setting up a working sheet, taking as a basis the balance sheet. Since inserting and completing the working sheet at this point would tend to detract from the demonstration its presentation will be deferred until after the journal entries have been given.

The first journal entry would consist in writing down the cost of road and equipment. Following this would come the entries setting up the receiver's certificates, the application of the proceeds of same, the operating transactions and the entries bearing on the refunding. If such journal entries are applied to the working sheet there will result the figures for a statement of income and profit and loss and a balance sheet reorganization, the latter only being required by the problem.

Surplus	\$ 1,750,000.00	
To Cost of road		\$ 1,300,000.00
Cost of equipment		450,000.00
To write down the cost of road and equipment accounts to the appraised value of the respective assets.		
Cash	487,500.00	
Discount on receiver's certificates	12,500.00	
To Receiver's certificates		500,000.00
For \$500,000 receiver's certificates bearing interest at 5% issued May 1, 1912, and sold at 97½.		
Cost of equipment	400,000.00	
Notes payable	50,000.00	
Interest accrued on notes payable.....	500.00	
To Cash		450,500.00
Disposition in part of funds realized through the sale of receiver's certi- ficates.		
Cash	411,314.33	
Due from other lines	125,417.82	
To Operating income		536,732.15
Cash	126,286.25	
To Due from other lines		126,286.25

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Operating expense	302,517.64	
To Due connecting lines		145,843.29
Cash		156,674.35
Due connecting lines	175,328.15	
To Cash		175,328.15
Taxes	15,000.00	
To Taxes accrued		15,000.00
Wages accrued (old)	14,500.00	
To Wages accrued (new)		5,650.00
Cash		8,850.00
Salaries accrued (old)	10,000.00	
Salaries	25,500.00	
To Salaries accrued (new)		8,000.00
Cash		27,500.00
Administrative expenses	12,375.00	
To Cash		12,375.00
Profit and loss	7,500.00	
To Organization expense		5,000.00
Injuries and damages during construction		2,500.00
Construction work	19,961.23	
To Construction material		7,525.00
Cash (wages)		12,436.23
Cost of road	44,961.23	
To Construction work		44,961.23
Interest	4,166.66	
To Interest accrued on receiver's certificates		4,166.66
Interest on \$500,000 for two months at 5%.		
Interest	28,750.00	
To Interest accrued on first mtge. 6% bonds		28,750.00
Interest on \$2,000,000, for six months at 6% (\$60,000) less interest accrued on same to April 4 (\$31,250).		
Preferred capital stock unissued	3,000,000.00	
Common capital stock unissued	4,000,000.00	
First mortgage 5% bonds unissued	5,000,000.00	
To Preferred capital stock authorized		3,000,000.00
Common capital stock authorized		4,000,000.00
First mortgage 5% bonds authorized		5,000,000.00
Increases in stock and bond issues authorized for refunding purposes.		

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Since there are numerous theories concerning the handling of the refunding entries they had better, perhaps, be deferred until after they have been discussed. The following tabulation will show at a glance the whole situation:

<i>Received</i>			<i>Issued</i>		
	Securities	Cash	5% bonds	Pfd. stock	Com. stk.
Receiver's certificates	\$ 500,000		\$ 500,000		
First mtge. 6's.....	2,000,000		2,000,000		\$ 600,000
Preferred stock	2,000,000	\$200,000		\$2,000,000	2,000,000
Com. stock, \$1,000,000 12,000	988,000	222,300			988,000
	\$5,488,000	\$422,300	\$2,500,000	\$2,000,000	\$3,588,000

From the above it appears that the securities issued are as follows:

5% bonds	\$2,500,000	
Preferred stock	2,000,000	
Common stock	3,588,000	\$8,088,000

While there has been received:

Receiver's certificates	\$ 500,000	
First mortgage 6's	2,000,000	
Preferred stock	2,000,000	
Common stock	988,000	
Cash	422,300	5,910,300

Showing an excess of securities issued over securities and cash received of	\$2,177,700
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The disposition of this amount then becomes the question of interest. Five ways suggest themselves, namely, charge either cost of road; franchise; reorganization expense; treasury bonds and stock (distributing the amount appropriately over the various securities to which it pertains and carrying it along with the bonds and stocks as treasury securities); or, surplus (deficit). To charge cost of road or franchise would be decidedly out of the question under the circumstances. The expense is one incident to raising capital and has not enhanced in any way the value of the property. To charge the surplus amount, which at this point would be showing a deficit, would clear the matter out of the way and allow the company to start afresh with a full knowledge of a deficit, the size of which would be appalling. On the other hand, the expense may be looked upon as attaching to the acquisition of the old bonds and the stock and should therefore increase the cost of such securities. To do this would be to

defer the day of reckoning since when the stocks were sold, if they ever were, the company would be obliged to show a heavy loss on them. Obviously, the only thing remaining to do is to charge reorganization expense and write the account down over a period of years. Either this or charging it to surplus immediately seems to be the most desirable of the five ways offered with preference for the former. In this way the expense is spread over a period of years and since the benefits of refunding, if experience proves the scheme to have been a judicious one, will accrue over period of years, justice will be more or less consistently meted out to a changing list of stockholders. Not forgetting, of course, that no dividends will be paid until the deficit resulting from the revaluation of the assets has been obliterated. The entry, therefore, in accordance with this line of reasoning is as follows:

Receiver's certificate	\$ 500,000	
First mortgage 6% bonds	2,000,000	
Treasury stock pfd.	2,000,000	
Treasury stock common	988,000	
Common stock	12,000	
Cash	422,300	
Reorganization expense	2,177,700	
To first mortgage 5% bonds unissued		\$2,500,000
Preferred capital stock unissued.....		2,000,000
Common capital stock unissued		3,588,000
Non-assenting common stock		12,000

There is nothing in particular gained in this case by setting up the non-assenting common stock further than to brand as it were the minority stockholders who have refused to become a party to the reorganization. Sometimes the procedure with regard to reorganization is different, an entirely new company being organized and the securities of the old company exchanged for those of the new. In such a case certain stockholders who refuse to exchange may not be ignored and their stock is carried on the books of the new company as non-assenting stock. The position of a stockholder who does not care to send good money after bad is a peculiar one. Nothing can compel him to exchange, neither will anything permit the company to ignore him. He is therefore carried along by the company with such stigma as "non-assenting stock" implies.

In bringing about the exchange of receiver's certificates and bonds it is probable that the interest would have been adjusted up to July 1. The following entry is, therefore, in order.

THE COLUMBIA TRACTION COMPANY

BALANCE SHEET, JULY 31, 1912

<i>Assets and Deficit</i>		<i>Liabilities and Capital</i>	
Cost of road	\$ 1,244,961.23	Capital stock:	
Cost of equipment	700,000.00	Preferred:	
Franchise	2,000,000.00	Authorized	\$5,000,000.00
Treasury stock:		Less—unissued	1,000,000.00
Preferred	\$2,000,000.00	Issued	\$ 4,000,000.00
Common	988,000.00	Common:	
Construction material	62,475.00	Authorized	\$5,000,000.00
Current assets:		Less—unissued	412,000.00
Cash	\$ 577,070.10	Issued	* 4,588,000.00
Due from other lines	4,131.57	Total capital stock issued	\$ 8,588,000.00
Notes receivable and interest	40,250.00	First mortgage 5% bonds:	
Total current assets	\$ 621,451.76	Authorized	\$5,000,000.00
		Less—unissued	2,500,000.00
		Issued and outstanding	2,500,000.00
Deferred charges to expense:		Current liabilities:	
Organization expense	\$ 95,000.00	Taxes accrued	\$ 30,000.00
Injuries and damages	47,500.00	Wages accrued	5,650.00
Discount on receiver's certificates	12,500.00	Salaries accrued	8,000.00
Reorganization expense	2,177,700.00	Accounts payable	20,664.00
Total deferred charges to expense	\$ 2,332,700.00	Due connecting lines	228,375.14
Deficit	1,583,751.15	Notes payable and interest	152,650.00
		Total current liabilities	\$ 445,339.14
Total assets and deficit	\$11,533,339.14	Total liabilities and capital	\$11,533,339.14

* Contains \$12,000 of non-assenting common stock.

WORKING SHEET

Assets	Balance sheet, April 4/12	Adjustments		Balance sheet, July 31/12	Income and ex- pense items
		Dr.	Cr.		
Cost of road	\$2,500,000.00	\$ 44,961.23	\$1,300,000.00	\$ 1,244,961.23	
Cost of equipment	750,000.00	400,000.00	450,000.00	700,000.00	
Franchise	2,000,000.00			2,000,000.00	
Construction material	70,000.00		7,525.00	62,475.00	
Construction work	25,000.00	19,961.23	44,961.23		
			450,500.00		
			156,674.35		
			175,328.15		
Cash	37,500.00	487,500.00	8,850.00	577,070.19	
		411,314.33	27,500.00		
		126,286.25	12,375.00		
		422,300.00	12,436.23		
			64,166.66		
			126,286.25		
Due from other lines	5,000.00	125,417.82		4,131.57	
Notes receivable—allied companies	40,000.00			40,000.00	
Account interest on notes receivable	250.00			250.00	
Organization expense	100,000.00		5,000.00	95,000.00	
Injuries and damages, etc.	50,000.00		2,500.00	47,500.00	
Total assets	\$5,577,750.00				
Discount on receiver's certificates		12,500.00		12,500.00	
Operating expenses		302,517.64			302,517.64
Taxes		15,000.00			15,000.00
Salaries		25,500.00			25,500.00
Adm. expenses		12,375.00			12,375.00
Org. exp. and injuries—written off		7,500.00			7,500.00
Interest		32,916.66			32,916.66
Preferred capital stock unissued		3,000,000.00	2,000,000.00	1,000,000.00	
Common capital stock (unissued)		4,000,000.00	3,585,000.00	412,000.00	
First mortgage 5's unissued		5,000,000.00	2,500,000.00	2,500,000.00	
Treasury stock preferred		2,000,000.00		2,000,000.00	
Treasury stock preferred		988,000.00		988,000.00	
Reorganization expense		2,177,700.00		2,177,700.00	
Profit and loss		140,922.85			140,922.85
				\$13,861,587.99	\$536,732.15

Department of Practical Accounting

WORKING SHEET (continued)

Liabilities and Capital	Balance sheet, April 4/12	Adjustments		Balance sheet, July 31/12	Income and ex- pense items
		Dr.	Cr.		
Preferred capital stock	\$2,000,000.00	\$ 12,000.00	\$3,000,000.00	\$ 5,000,000.00	
Common capital stock	1,000,000.00	60,000.00	4,000,000.00	4,988,000.00	
First mortgage 6's and interest	2,031,250.00	2,000,000.00	28,750.00	30,000.00	
Taxes accrued	15,000.00		15,000.00		
Wages accrued	14,500.00	14,500.00			
Salaries accrued	10,000.00	10,000.00			
Accounts payable	20,664.00			20,664.00	
Due connecting lines—allied	257,860.00	175,328.15	145,843.29	228,375.14	
Notes payable	200,000.00	50,000.00		150,000.00	
Interest account on notes payable	3,150.00	500.00		2,650.00	
Surplus	25,350.00	1,750,000.00	140,922.85	* 1,583,751.15	
Total liabilities and capital	\$5,577,750.00				\$536,732.15
Receiver's certificates		500,000.00	500,000.00		
Operating income			536,732.15		
Wages accrued (new)			5,650.00	5,650.00	
Salaries accrued (new)			8,000.00	8,000.00	
Interest account on receiver's certificates		4,166.66	4,166.66		
First mortgage 5's authorized			5,000,000.00	5,000,000.00	
Non-assenting common stock			12,000.00	12,000.00	
					\$13,861,587.99
					\$536,732.15

Debit items among credits.

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Interest accrued on receiver's certificates	\$ 4,166.66	
Interest accrued on first mortgage 6's	60,000.00	
To cash		\$64,166.66

At this point the working sheet may be prepared. It is shown in its entirety * even though the problem does not require an income statement, in order that the figures may be tied up. Unfortunately nothing is said in the problem about the interest on notes receivable and payable so that it cannot be accrued at this time.

From the working sheet a balance sheet may be prepared.† It has been dated July 31, 1912, in order to leave no question as to its having been prepared after the reorganization, since no date is given in the problem. Since this is an arbitrary date no cognizance has been taken of accruals for the month of July.

PROBLEM No. 21-A (PRACTICAL)

From the text of Problem No. 21 prepare a statement of affairs and deficiency account after the receiver had taken charge and secured appraisals and estimates.

* See pages 242 and 248.

† See page 241.

New York C. P. A. Examinations

University of the State of New York

35TH ACCOUNTANT EXAMINATION

THEORY OF ACCOUNTS

Tuesday, June 24, 1913—9:15 a. m. to 12:15 p. m., only

"The regents of the university shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose * * *"

Laws of 1896, ch. 312, sec. 2.

Answer ten questions but no more, selecting at least two questions from each group. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number of each one of the questions you have answered. Each complete answer will receive ten credits. Papers entitled to seventy-five or more credits will be accepted.

Group I

1. State the principles that underlie the mechanism of the statement of resources and show their application.
2. Show how the proprietor's account, under the theory of single entry, may be so kept that in a small business where the cost of goods sold is easily determined, the net worth of the business may be known at any time.
3. In the business of a factor what does the balance of sales account represent? Why?
4. In formulating a profit and loss statement for manufacturing concern in which factory rent is an element, under what classification would you allocate it in order to be economically sound?
5. Outline the theory of accounts pertaining to the business of a commission merchant.

Group II

6. Overhead factory expenses are sometimes computed on the basis of labor, sometimes on the basis of material and sometimes on both; at other times the expense is computed on the machine hour basis. Why are these arbitrary methods adopted?
7. What knowledge must a transfer agent possess in order to safeguard his company in the transfer of its certificates of stock?
8. Overhead factory expense is computed on the hour basis in a paint shop with unskilled labor and in a machine shop with skilled labor. How would such application affect cost?
9. Distinguish between simple and compound interest as generally understood and in the latter case between nominal and effective rates.

The Journal of Accountancy

10. Explain what is understood by an arbitrage and cite an example.

Group III

11. Indicate *three* different ways through which the foreign indebtedness or claim of a New York merchant may be liquidated.
12. Explain by means of a diagram the theory of foreign exchange, comprehensively showing transactions of equivalent value between R & S importers and exporters respectively in New York and D & G importers and exporters respectively in Berlin.
13. In a manufacturing establishment what would you consider the essential factors to be borne in mind when making provision for depreciation? Explain the *annuity* method of providing for the same.
14. Explain *six* different ways of apportioning depreciation charges from year to year and point out clearly their distinguishing features.
15. A large hotel is furnished on the instalment plan. Explain, giving reason, whether the question of interest is of importance to (a) the seller, (b) the buyer.

University of the State of New York

35TH ACCOUNTANT EXAMINATION

PRACTICAL ACCOUNTING—PART I

Tuesday, June 24, 1913—1:15 to 4:15 p. m., only

The practical accounting paper consists of part I and part II

"The regents of the university shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose * * *")

Laws of 1896, ch. 312, sec. 2.

Answer two questions but no more. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number of each one of the questions you have answered. Each complete answer will receive twenty-five credits. Papers entitled to seventy-five or more credits will be accepted.

1. The Allen Automobile Co. assembles cars on orders only. The following is a synopsis of its factory activities for a given period:

Parts purchased	\$ 65,000
Parts manufactured (material cost)	225,000
Productive labor (125 per cent of material)	281,250
Factory expense	451,200

Cost of cars:

Parts purchased consumed	55,000
Parts manufactured (material cost)	75,000
Productive labor (145 per cent of material)	188,500
Factory expense	226,200

New York C. P. A. Examinations

Material on hand, unmanufactured 200,000

Create a technical trial balance of the cost ledger and an inventory of the stock room.

2. A French merchant having a debt of £10,000 to liquidate in London in 45 days, desires to know where it would be the most advantageous for him to purchase English money, in Paris, Amsterdam or Berlin.

The market quotations in the respective places on a certain given date reveal the following:-

<i>Paris</i>	Frs.
London paper at sight	25.275 less 6%
Amsterdam paper at 3 mo.	205 and 4%
Berlin paper at 3 mo.	121¾ and 4%

<i>Amsterdam</i>	
Guilders	Disc. in London
12.075 at 2 months	6%

<i>Berlin</i>	
Reischmarks	Disc. in London
20.25 at 3 months	6%

Prepare the required statement, ignoring all banking charges and selling commissions.

3. The following is the trial balance of Oliver and James, Agents, Buffalo branch, December 31, 1912:

New York office	\$2,500
Accounts receivable	\$3,000
Cash in bank	2,500
Expenses	800
Merchandise account	3,800
	<u>\$6,300</u> <u>\$6,300</u>

Inventory \$2,000.

From the above data make the journal entries to adjust the New York books.

University of the State of New York

35TH ACCOUNTANT EXAMINATION

PRACTICAL ACCOUNTING—PART II

Wednesday, June 25, 1913—9:15 a. m. to 12:15 p. m., only

"The regents of the university shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose * * *

Laws of 1896, ch. 312, sec. 2.

The Journal of Accountancy

Answer two questions but no more. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number of each one of the questions you have answered. Each complete answer will receive twenty-five credits. Papers entitled to seventy-five or more credits will be accepted.

4. William Pitt and John Fox, merchants with offices in Manchester and New York, equally interested in a business venture, decide to dissolve the partnership as at December 31, 1911, at which time their financial position is as follows:

Accounts receivable uncollected	£4,000 =	\$19,480
Office furniture on hand	£ 100 =	487
Accounts payable unliquidated	£ 900 =	4,383

The accounts had been kept in dual currency.

Pitt acts as liquidator and takes over the business, agreeing to purchase the furniture at a 10 per cent reduction as at January 1, 1912, and to allow on the same date to Fox £600 = \$2,922 for his share of the goodwill.

The accounts receivable are collected on the following dates:

April 15/12	£1,000 = \$4,870	April 23/12	£ 100 = \$ 487
June 10/12	£1,600 = 7,792	October 8/12	£1,200 = 6,844

The balance is uncollectible and considered lost.

The accounts payable are liquidated in full as follows:

March 11/12	£ 100 = \$ 487	April 20/12	£ 200 = \$ 974
May 30/12	£ 300 = 1,461	October 26/12	£ 300 = 1,461

After deduction of the payments made, the net receipts are realized on a certain average date (to be determined) from the date of dissolution.

Pitt advances to Fox £1,000 = \$4,870 on March 31, 1912, and pays him the balance on January 1, 1913, with interest at 6% per annum.

Prepare an account current in English currency *only* (calculating interest at above stated rate) as Pitt shall render to Fox, disclosing the amount due the latter as at January 1, 1913.

5. A & B are partners owning two retail stores, one in Paterson and the other in Newark. They agree to dissolve partnership as of July 1, 1912. The two stores are valued July 1, 1912, as follows: Paterson, \$4,573.50; Newark, \$3,600. On this basis B contemplates purchasing A's interest. On being furnished with the following data, B requests you to inform him if the inventory of the Paterson store January 1, 1912, was correct as A claims:

Value of the alleged inventory January 1, 1912, in the Paterson store	\$3,800.00
Purchases for both stores, January to July, paid for	5,128.80
Due to creditors on account of both stores, July 1	1,500.00
Cash sales, Newark store	1,875.00

New York C. P. A. Examinations

Cash sales, Paterson store 3,105.00
Purchases, Paterson store, January to July 3,325.00
Profits 50 % of sales.

Prepare a statement proving whether or not the inventory of the Paterson store January 1, 1912, was correct as stated.

6. Prepare a plan of a depositor's ledger for a trust company that allows 2% interest on daily balances. Incorporate in this plan the following particulars exemplifying X's account:

Deposits—July 1, 1911, \$5,000. October 1, \$50. Nov. 1, \$60. April 1, 1912, \$50. May 1, \$60. July 1, \$4,807.78. July 1, \$2,045. August 1, \$100. Nov. 1, \$120.

Withdrawals—July 1, 1911, \$4,245. July 1, 1912, \$7,103.30.

University of the State of New York

35TH ACCOUNTANT EXAMINATION

AUDITING

Wednesday, June 25, 1913—1:15 to 4:15 p. m., only

"The regents of the university shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose * * *"

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Answer ten questions but no more, selecting at least two questions from each group. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number of each one of the questions you have answered. Each complete answer will receive ten credits. Papers entitled to seventy-five or more credits will be accepted.

Group I

1. A, engaged in the jobbing business, enters into a copartnership agreement with B, the terms of which are in substance as follows: B is to share in the gains and losses of the business at the ratio of $37\frac{1}{2}\%$, which is in proportion to his investment of \$6,000. A is to act as general manager, cashier, etc., and is to render an accounting to B at the end of every six months. The books are kept by single entry. They are daybook, check book, provided with proper columns and space for deposits, drawings and particulars, and a general ledger kept in accordance with the purpose of single entry. All moneys received or paid pass through the bank. You are engaged to render the accounting to B at the end of the first six months. State what information you would consider necessary to convey to B and how you would proceed to obtain it from the material at hand.

2. What are the chief points to which attention should be directed in dealing with fluctuating currency in the books of accounts of merchants?

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3. An auditor, on completing an investigation of the affairs of an importing house, certifies that the accounts are correct as recorded in the books. Would you criticize this certification? If so, why?

4. An importer of automobiles receives shipments in accordance with *bona fide* orders placed against six months' acceptances with interest. He stores the merchandise in bonded warehouses subject to withdrawal. At the end of the fiscal period it is customary to omit from the inventory such warehouse goods as are left and also the acceptances unpaid. In being asked to certify the statement of conditions at a given time, how would you deal with this state of facts?

5. A, B and C are equal partners, each having subscribed \$5,000 to the partnership. A pays in \$3,000, leaving \$2,000 still due the partnership on his capital account. It is agreed for the present that this \$2,000 can remain unpaid, provided A pays interest on same, which he does. Later a dispute arises as to how this interest shall be credited. A claims that it should be included with the earnings of the business, the profits of which are to be divided equally among the three partners. B and C claim that this interest should be divided between them only, as they fully lived up to their obligations under the partnership agreement, while A had only partially done so. To what account should the interest on the deferred payment be credited?

Group II

6. In auditing the accounts of a manufacturing firm, what salient features of the cost ledger should receive attention?

7. In auditing the accounts of a manufacturing contractor, what manipulations of the cost accounts should the auditor anticipate, to guard against inflating profits?

8. What common expedient is resorted to by manufacturing contractors to hide their losses in the cost ledger?

9. In auditing the accounts of a factor, what equitable method should the auditor employ to ascertain the amount of interest due to or from the consignor with respect to the account sales?

10. What documentary evidence would you require to prove the acceptance of bills payable by a factor, against goods in transit?

Group III

11. What method would you adopt to prove the outstanding certificates of stock to be correct as represented on the transfer ledger?

12. The value of the lease of a piece of property for 20 years, with privilege of renewal for a like period, is carried on the books at its value in fee simple. Would you pass this unnoticed? If not, why not?

13. In the books of a manufacturing corporation whose accounts you are investigating for creditors, you learn from outside sources that accounts assigned to a discount company have been concealed. Explain how this may have been done and the methods you would pursue to detect it.

14. Three corporations are to be merged. In examining the records of

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Corporation B formed three years previously with an authorized capitalization of \$250,000, you find the entire capital stock carried on the books as fully paid in. The facts you ascertain are as follows:

There are three directors, X, Y & Z, composing all the subscribers to the stock. The payments have been received at a directors' meeting with all present. X subscribed for \$100,000 worth of stock and paid all in cash; Y subscribed for \$75,000 worth of stock and paid \$50,000 in cash and a note of \$25,000 on demand; Z subscribed for \$75,000 worth of stock and paid \$25,000 in cash and a note of \$50,000 on demand.

These notes are carried among the assets and are still unpaid at the time of your examination, no interest having been collected. Y and Z cannot make good. In preparing a report on this state of facts what recommendations would you make and why?

15. In auditing the books of a concern you detect the following:

A customer paid \$100 in currency on account of a debt and returned \$10 worth of merchandise. The entry in the cash book records a receipt of only \$90 and the return book a return of \$20. The money not properly accounted for was taken by the bookkeeper. In reporting these facts state where in this transaction you find a defalcation, a fraud committed or an embezzlement.

University of the State of New York

35TH ACCOUNTANT EXAMINATION

COMMERCIAL LAW

Thursday, June 26, 1913—9:15 a. m. to 12:15 p. m., only

"The regents of the university shall make rules for the examination of persons applying for certificates under this act, and may appoint a board of three examiners for the purpose * * *"

Laws of 1896, ch. 312, sec. 2.

Answer ten questions but no more, selecting at least two questions from each group. Answers in excess of the number required will not be considered. Do not repeat questions but write answers only, designating by number as in question paper. Check the number of each one of the questions you have answered. Each complete answer will receive ten credits. Papers entitled to seventy-five or more credits will be accepted.

Group I

1. A sends to B, in settlement of an undisputed account amounting to \$1,000, a check for \$850, bearing the inscription "In full payment of account." B deposits the check in his bank for collection but credits A's account only with \$850. Is A liable for the balance? If so, why? If not, why not?

2. A received from B an order in writing to ship a barrel of paint "via New York Central" to Rochester. When the barrel reached destination it was empty. Can A recover from the railroad for the value of the paint? Explain.

3. A stores goods with B, a warehouseman. The goods are stolen from the warehouse without negligence on the part of B. Is B liable for the goods? If so, why? If not, why not?

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4. A makes a promissory note in favor of B for \$100, payable in one year after date at 4%. The note is dishonored at maturity and nothing is paid on it for two years. How much is due?

5. A guaranteed the performance of a contract by B. The contract was, however, performed by B & Co., a firm of which B was a member. On the breach of the contract the creditor brought action against A on the guaranty. Is A liable? Explain.

Group II

6. A steamboat owned by a corporation and not insured by it, is insured by D, a stockholder, in a reputable company. Subsequently the steamboat is destroyed by fire. The insurance company refuses to pay D, claiming that he, D, has no insurable interest. Is D's claim collectible? Explain.

7. A owns several coal yards; he puts B in charge of one of them with instructions to hire only a certain number of men. B hires more than this number of men. Is A liable for their wages? Explain.

8. With what provision of the law must one comply in order to conduct a general mercantile or manufacturing business in this State in a fixed location as agent for another?

9. A invested \$5,000, B \$1,000 and C his skill in a partnership. After settlement is made with creditors it is found that the firm has lost \$1,000 and in addition A has loaned the firm \$1,000. How would you close up the partnership? What amounts are due the partners respectively?

10. When may a special partner lawfully receive interest on the capital contributed by him?

Group III

11. Among the assets of a corporation are several notes from subscribers in payment of an instalment of capital stock after it has been called in and payment required. What liabilities does this impose on the directors?

12. A is the *bona fide* holder of a note for \$1,000, payable three months after date and made by the N company, a domestic corporation. The note is executed by the proper officers of the corporation, who are authorized to do this by the board of directors, and is to bear interest at the rate of 10%. Is the corporation liable on the usurious note? If so, for how much? If not, why not?

13. A piece of real property covered by a mortgage is insufficient to satisfy the mortgage debt. With respect to other creditors, what rank does the mortgagee have for the balance due him on the personal property of the mortgagor?

14. Give the order of payment to creditors of an insolvent corporation?

15. (a) What claim, if any, have stockholders as against other creditors on funds set aside for payment of a dividend declared payable?

(b) What claim, if any, have they on the general assets of the corporation when no specific funds have been set aside?

American Association of Public Accountants

TENTATIVE PROGRAMME FOR ANNUAL MEETING

COMMITTEES

General Committee: Harvey S. Chase, Chairman; Amos D. Albee, Gerald Wyman, Walter C. Wrye, Secretary.

Reception and Registration, Walter C. Wrye, Chairman.

Ways and Means, Gerald Wyman, Chairman.

Transportation, Augustus Nickerson, Chairman.

Entertainment, Edward L. Pride, Chairman.

Historic Boston, Amos D. Albee, Chairman.

Banquet, J. Edward Masters, Chairman.

Papers and Speakers, Harvey S. Chase, Chairman.

Publicity and Printing, George L. Bishop, Chairman.

Ladies' Reception and Entertainment, F. R. C. Steele, Chairman.

Waldron H. Rand (ex-officio), Pres. Certified Public Accountants of Mass., Inc.

PROGRAMME

Sunday, September 14—Reception committee and members of general committee will be at the Copley-Plaza Hotel to receive delegates and visitors.

Monday, September 15—10 a. m. Opening of Headquarters at Copley-Plaza Hotel. 11 a. m. Meeting of trustees. 4 to 6 p. m. Reception by president, officers, and ladies (light refreshments). 8 p. m. Musical recital and informal dance under charge of entertainment committee.

Tuesday, September 16—10 a. m. Meeting of Association at Copley-Plaza: Appointment of credentials committee; president's address; submission of delegates' appointments and report thereon; regular business. 1 p. m. Adjourn for lunch provided by the Massachusetts society. 2:30 p. m. Meeting of Association continued; trustees' report; committees' reports; etc. 5 p. m. Adjourn. 8 p. m. Meeting of Association continued; further business; reading of one paper and discussion. 8 p. m. Entertainment of visiting ladies by ladies of the Massachusetts society.

Wednesday, September 17—10 a. m. Meeting of the Association continued; election of officers. 12:30 p. m. Adjourn for lunch under the auspices of the Boston Chamber of Commerce or other civic organization. 2:30 p. m. Harbor trip, to be arranged by historic Boston and outings committee. 8 p. m. Meeting of the Association continued; reading of two papers and discussion.

Thursday, September 18—10 a. m. Meeting of the Association continued; business continued; reading of one paper and discussion. 1 p. m. Adjourn. Meeting of Trustees. 2:30 p. m. Final session of Association and installation of officers, followed by tour of historic Boston and Cambridge in sight-seeing automobiles. 7 p. m. Banquet at the Copley-Plaza.

Friday, September 19—Annual golf tournament, tennis, and sports at Braeburn Club, Newton.

The above programme was adopted at the meeting of the committee held Wednesday, May 21, 1913. Again approved May 26, 1913.

Correspondence

Cost of Prison-Made Goods

Seattle, Wash., July 19, 1913.

Editor, The Journal of Accountancy:

Sir: The board of control of the state of Washington is about to face a rather interesting situation which emphasizes the advisability of asking the advice of the accountancy profession when principles of accountancy are involved.

Obviously for the purpose of establishing an effective competition against what the farmers call "the sack trust," a law has been passed providing that a price of grain bags produced in the state penitentiary be established that will ensure a profit for the state of not more than $12\frac{1}{4}\%$. After selling more than two million bags at eight cents a piece, the superintendent of the penitentiary desires to know whether or not the state has made the required profit, and he has called upon the board to solve the problem. The cost of the bags, without considering "labor," was \$.058 apiece, showing a profit of \$.022, equal to 38%, but if labor, based on the average cost of maintaining the prisoners, be included, the cost of each bag was \$.0829, and on this basis the state lost money. It would, however, he says, be necessary to maintain the prisoners whether they make bags or not, and the question now is whether or not this charge is part of the cost.

It will be interesting to learn the conclusion of the board before the price for next year is established.

Yours truly,

WILHELM JENSEN.

Incomplete Audits

Editor, The Journal of Accountancy:

Sir: In the July issue of THE JOURNAL, Mr. L. R. ROBERTS, of Tacoma, Wash., asks us of what value we consider an audit that does not analyze the most vital part of their client's business. We, of course, do not lay much stress upon an audit that does not go thoroughly into each phase of any business.

In reply to the question why we allowed a secretary to dictate that we should not go into the merchandise account more thoroughly than we did, the secretary was given the power by the president to act in his capacity during his absence and we were compelled to act in keeping with his wishes or stop the work. We did not like to omit going thoroughly into the merchandise account but there was no alternative for us.

Correspondence

We heartily agree with Mr. ROBERTS in his idea, which is to build up the profession to the point where no one will dictate to you what you shall or shall not do, but this is an impossibility, for there are times you are called in to do certain specific things and if you attempt to do other things you will incur enmity on account of not abiding by the client's wishes. In such cases, we always call particular attention in the text of our report to the fact that we were employed to do certain things and that we had done these and no more.

The reason the president of the wholesale grocery house, that we referred to, was surprised to find the merchandise account had not been thoroughly checked was as stated in our previous article. This brings to mind, and plainly so too, defective or deceptive auditing. We in this territory have to suffer, like accountants in all other cities, by reason of quack accountants. Good lawyers, doctors, in fact men in every profession have to bear the burdens of those that are careless and wilfully misrepresent facts.

Yours truly,
O. R. EWING & COMPANY.

Interest and Cost

Editor, The Journal of Accountancy:

Sir: It is constantly borne in upon me that no profession is exact. Two physicians of equal prominence may diagnose a disease in the same general way but they will prescribe different treatment. Two lawyers of repute on opposite sides of a case in a court room will interpret the same law in the interest of their respective clients. And I note by the discussion in your JOURNAL relating to the treatment of interest in manufacturing business that even accountants of note are not agreed on this point.

If X represents the cost of manufacture and Y represents the general expenses and Z represents the selling expenses it is manifest that X plus Y plus Z will equal the total costs of doing the business, and it is perfectly immaterial as a practical matter whether the interest included in these costs is put in one or another of the divisions so far as the net profit of the business is concerned; and the treatment of interest would not make one iota of difference in the price to be put upon the article manufactured in order to produce a net profit at the end of a term. Nor would the inclusion or exclusion of interest as regards the manufacturing costs make any appreciable difference, if any difference at all, in the net profits of a business for a series of years, although there might be a slight difference in the showing as between individual years according to whether any portion of the interest charged were included or not in the price of goods in process or of finished goods in stock at the taking of an inventory. Even this item would undoubtedly regulate itself when taking several years together.

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It is therefore manifest to me that the question is merely an academic one, and treated academically I should say that interest on capital invested in a factory or its equipment is of the same nature as a rental and should be allowed for as a charge against the factory account and a credit to a special interest account on the books of a manufacturer owning the property, against which payments actually made for this kind of interest should be charged, but I would recommend "going slow" about declaring a dividend out of such a credit balance on an interest account.

In offering this suggestion, it may be that I go even further than those contributors who have claimed that interest paid should be charged against cost production, because I include as a cost interest which has not been and never will be paid except through bookkeeping entries. In fact, I claim that the cost of manufacturing goods should be charged with at least 5 per cent interest on the actual cost of that portion of the factory property, including tools and machinery, used for the actual production of such work, also including the space occupied for storing material necessary in manufacture and all of the goods being manufactured up to the time of completion, but not including raw materials purchased speculatively. Interest paid or computed for any other purpose than this should in my opinion have no place in a charge against production, but should be included in the general expenses. A credit interest balance such as I have described will be useful for a comparative statistical statement of businesses of the same character, but inasmuch as it would not really be a cash outlay it might be available to draw upon if all the other profits or surplus accounts were exhausted.

By this method, some of the results as to profits would depend upon the business judgment shown in purchasing a factory in the first place or upon the ability of the manufacturer to negotiate a lease favorably. For, to generalize, if the total rental paid is less than the obvious costs of ownership it is a good stroke of business to rent, if one does not consider the quite speculative factor of a possible enhancement in the value of a property.

Very truly yours,

S. E. SARGENT, C.P.A.

New York, July 8, 1913.

Editor, The Journal of Accountancy:

Sir: I have read with interest, the recent contributions to *THE JOURNAL* on the question, "In a manufacturing business, shall interest on investment be considered as a factor of cost, or shall it be treated as a deferred charge against profits?"

Stated another way, it seems to me that the proposition would be, "Shall interest be one of the factors determining price to the consumer?"

Manufacturing is concerned with production, and in the science of accounting production is complete when an article is made and placed in the warehouse, ready for sale. But this is production only in a special sense. In the broader political economic meaning of the term

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production is not complete until the article has reached the consumer. Goods, lying in the warehouse may as well not be produced, so far as the consumer is concerned, because they have not yet satisfied any human want. They must enter into the processes of exchange, and in so doing call forth the production of other things. Thus exchange becomes part and parcel of production.

I understand capital to be accumulated wages, or wealth used to produce more wealth, for there could be no such thing as capital without there first having been labor to produce it. The human element must, in some way, even though slightly, be identified with it before we can speak of it as capital, as distinguished from the natural opportunity.

One of the most important phenomena in modern economic development is that under normal conditions increase of capital has led to or should lead to diminished cost of production and consequent lessening of price to the consumer. If the investment spoken of in the proposition is the property of the owners of the business, they have but contributed their own stored up wages (capital), or its equivalent. Under such conditions, they are able (other things being equal) to produce cheaper than one who has not these facilities. If we are in this case to burden the public with the difference in cost of production between the improved method brought about by the use of capital on the one hand, and the primitive hand labor method on the other, what particular advantage or even incentive would there be for making the improvement?

On all sides we hear it asserted that such and such a large concern can undersell a smaller one because the former can produce in much larger quantities, by reason of the fact that it has much greater capital facilities.

The owners of the investment mentioned above receive their reward through a larger market, a better product, an increased production and a more frequent turnover of product. As a result of this their own income and material comfort is correspondingly increased. This to them represents the difference between the primitive and the improved. As the processes of labor become differentiated, the returns to them become greater because of an increased ability to satisfy an increasing demand. So that a dual phenomenon has made its appearance, *vis.*, a diminished price to the consumer, and at the same time an augmented return to those immediately concerned in producing the thing consumed.

Thus we can see that the investor has received the full and proper return for the advantage that he has had over his competitor. And this is as far as it should go. If we allow it to overstep the line and enter into the region of price, all of that part which enters into price must come out of wages, or else wages would have to be increased in order to meet the increase in price. What would be the gain in a broad economic sense? The proposition, as originally stated, refutes itself.

Now, taking another phase of the original proposition, *vis.*, that the investment consists of borrowed capital, it would seem to me that I cannot charge the public with dividends or earnings upon capital, which

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I have not invested. If I do so, somebody will be cheated. It would be no justification to conceal this increase in the cost records before arriving at the selling price.

If we periodically charge the consumer with a fractional part of the investment, we admit that the consumer has an equitable interest in the investment. But we start out by denying this very thing. And again, if we charge interest on investment, so as to make it a part of price, why should we not also charge depreciation in the same way?

The proposition suggests to me the artificial and false basis which a great deal of business has at the present day. I believe I have seen it stated that fully twenty billions of stocks and bonds in existence today represent no tangible investment whatever—nothing but water and wind. To tax the public with dividends and earnings upon this worthless stuff is a procedure against which I think accountants should take a firm stand. And yet there is very little difference between this and the original proposition of taxing the consumer with an element in the cost of production which is properly a charge against the real or nominal owners themselves.

I believe in the dollar for dollar basis, with one hundred cents to the dollar. This may sound old fashioned, but I don't think we will go very far astray if we advise our clients according to this standard.

Very truly,

Billings, Montana.

Geo. T. WATTS.

"Certificate Qualified"

Editor, The Journal of Accountancy:

Sir: As a subscriber to *THE JOURNAL OF ACCOUNTANCY*, and a constant reader, when opportunity permits, I must commend you for many of the excellent articles and editorials which are constantly appearing in the Magazine.

Far be it from me to endeavor to bring before you experience of a personal nature, except that it might be of a value to the profession.

Your editorial in the August number *Certificate Qualified* brings out a very strong point in connection with our work, which it has been my privilege to experience within the past seven months. Referring to the first paragraph on page 122, I had the opportunity of going into an office and certifying to a statement from the books of the corporation, but the request and conditions connected therewith were such that I would not have the opportunity to verify the figures, or in other words, make an audit of the period reviewed; consequently I declined to do the work, and as was natural, lost the client.

Not having become established in that locality to any great extent, I naturally felt the loss, but this did not change my mind nor affect me, as much as the information that a larger and longer established firm of certified public accountants accepted and performed the work which I refused to do.

Correspondence

From your article, and a professional standpoint, such action was anything but commendable, was it not? Again, if our profession is to be elevated, and a high standard maintained, why will such large firms "as they evidently seem to be" stoop to such low practice?

I believe that if such experiences be brought to the attention of public accountants, a firmer and more independent stand will result therefrom, and more respect be given our statements when we refuse to do as was requested in the above case.

Yours very truly,

J. W. HANKS.

La Crosse, Wis., August 11, 1913.

The Institute of Chartered Accountants of British Columbia

The eighth annual meeting of the Institute of Chartered Accountants of British Columbia was held on July 21st, 1913. The membership now stands at forty-six. The council for the ensuing year consists of the following: Alfred Shaw, president; W. E. Hodges, first vice president; A. H. Edwards, second vice president; Andrew Stuart, third vice president; George E. Winter, secretary and treasurer; R. W. Middleton, H. C. Chiene, C. H. D. Robertson, and A. H. Griffiths.

The Society of Louisiana Certified Public Accountants

At the annual meeting of the Society of Louisiana Certified Public Accountants the following officers were elected for the ensuing year.

G. V. W. Lyman, president; R. C. Lloyd, vice president; Paul Havener, secretary; Myron M. Goldman, treasurer; and Henry Daspit, member of the executive committee.

G. V. W. Lyman was elected delegate and W. G. Taylor as alternate to represent the society at the annual meeting of the American Association of Public Accountants.

Tennessee Society of Public Accountants

At the annual meeting of the Tennessee Society of Public Accountants the following officers were elected for the ensuing year.

W. A. Smith, president; J. G. Metz, treasurer; and W. T. Watson, secretary.

North Dakota State Board of Accountancy

The North Dakota state board of accountancy, appointed in July, consists of Walter Thompson, of Fargo; F. F. Cuthbert, of Devils Lake, and Frank L. McVey, of Grand Forks.

Book Department

THE INFLUENCE OF ACCOUNTANTS' CERTIFICATES ON COMMERCIAL CREDIT, Edited by A. P. RICHARDSON, *Secretary*, and published by *The American Association of Public Accountants*, 1913. Cloth. 99 pages. 50 cents.

This book is of vital interest to every member of the accounting profession in America. The opinions of more than eight hundred bankers, representing banks in all parts of the United States, are given concerning the desirability of accountants' certification of statements furnished by prospective borrowers or note brokers. The book is concisely arranged and gives first prominence to the remarkably few opinions adverse to the growing tendency to require such certification. The book constitutes practically the report of a committee appointed by the American Association of Public Accountants, the national organization of the profession, to canvass the leading bankers of the country, on the subject of accountants' verification and certification of borrowers' financial statements. Three thousand four hundred bankers, whose institutions have a capital of \$100,000 or over, were addressed and certain questions were propounded.

Eight hundred and forty-four replies were readily forthcoming and the same have been classified under five headings as follows:

Strongly in favor	121
Favorable	501
Opposed	15
Strongly opposed	5
Non-committal	202
<hr/>	
Total	844
<hr/>	

Of the "strongly opposed" replies, the opinion of one banker "I think it's a proposition to magnify your own job" brings out into clear relief *per contra* the statement of Mr. DAVID R. FORGAN, President of the National City Bank of Chicago, as follows: "This is one of those happy cases which combines with the furtherance of your own interests as accountants the purifying and strengthening of the entire system of credits through which nearly all modern business is transacted." Against the accusation of self advertisement, the profession submits its claim to recognition for reasons of general public policy, apart from the selfishness alleged. Generally speaking, the replies classified as "non-committal" are from bankers in small communities where their banking business is largely of a nature which does not bring the banker into touch with the advantages of certification and where intimate personal knowledge of the borrower predominates as a consideration in granting credit.

The number of replies received will be considered gratifying by

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members of the profession, all circumstances considered, and the nature of the replies which are given in the book is worthy of study by every public accountant seeking to extend the prestige of his profession. The strongly favorable letters of Mr. DAVID R. FORGAN, president of the National City Bank of Chicago, Mr. J. G. CANNON, president of the Fourth National Bank of New York and Mr. JOS. T. TALBERT, vice-president of the National City Bank of New York, naturally overwhelm the very few expressions in opposition to the general proposition. Nevertheless, the reasons given by some of those who oppose the suggestion are such that the accounting profession should seek every means to prevent the spread of such views as are expressed by a bank of some importance in the Middle West, the president of which writes in part as follows:

"On the other hand, frequent single failures are taking place, where the liabilities run into the millions, of firms and corporations whose statements have been audited and verified by so-called public accountants, while the actual condition of affairs bore no resemblance to the picture painted by the statement and the auditors' verification thereof. We, therefore, feel that until audit companies are required to have a certain fixed capital, and are held personally liable in a substantial sum for losses incurred by reason of their misrepresentation of facts, and are required to give bond to cover such losses, the audit will be of little practical use. In the meantime, bankers and lenders of money will continue to grope around in the dark and make their own investigations, as they are doing now."

Also the following:

"The most money this bank has ever lost has been in loans made on the basis of public accountant statements, or parties who claim to be public accountants or expert accountants. Within the last ten years we have suffered greatly by loans on these statements. In one instance we got about 33 cents on the dollar.

"It seems to me if this public accountant business could be placed upon some sort of legal basis, with penalties attached for false and padded statements, it could be made of great benefit to banks, but many of these statements have been palmed off on the public as being made conscientiously, when in fact it appears that they were made only for the purpose of strengthening the parties' credit, when they really did not deserve any sort of high rating, and were not even worthy of ordinary credit.

"We are very highly prejudiced against these methods of loaning money, and would not loan money to anyone on a statement made by an expert or public accountant, where the parties are not known to us."

This letter indicates a lack of common information rather remarkable in any banker. Surely "this public accountant business" is on a "legal basis" and "penalties" are "attached for false and padded statements."

The criminal statutes of America would operate just as surely and result in similar conviction and sentence should an occasion ever arise where a public accountant corruptly and knowingly certified falsely, as did the English statutes in the case of *Dumbells' Banking Co. Limited*, Special Court, at Douglas, Isle of Man, November 5 to 14, 1900. (Acct. L. R. 1900, p. 181.)

The majority of the readers of THE JOURNAL are undoubtedly familiar

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with the standard form of borrowers' statement officially adopted by the New York State Bankers' Association and the short form recommended by the American Bankers' Association, reproductions of which are found on pages 217-220 of MONTGOMERY's *Auditing, Theory and Practice*. The verification of such statements by reputable certified public accountants should complete a most positive and trustworthy basis for the intelligent extension of credit by bankers. It is unfortunate that the reputable professional certified public accountant is confounded with "audit companies required to have a certain fixed capital."

If the American Association could convince its members that the time is fast arriving when the profession must put itself in a definite position practically to guarantee the acts and practice of recognized and qualified members of the profession, a long step will have been taken toward disarming all the opposition expressed in the few antagonistic letters received by the committee. Again to quote MONTGOMERY,

"The quickest way to weed out the incompetent men who now hold themselves out as public accountants would be to make them understand the civil responsibility of a professional accountant,' and * * * While the fact that we have no reported decisions speaks well for the integrity and good judgment of our accountants, yet it is felt that occasions have arisen where a test case would have been made had it not been known that any judgment involving money damages which might have been rendered would have been worthless, so far as the possibility of collection was concerned."

Public accountants cannot be expected to be insurers in the broad sense of the term, but a somewhat casual suggestion has been made in this connection that the American Association should so extend its constitution and by-laws that members should be required to contribute to a "mutual fidelity insurance fund" to be used substantially to guarantee the professional acts of members and to insure the public to a reasonable extent against damage *resulting from careless service or intentional misfeasance*. This suggestion has not had any consideration or discussion by the association as yet, but if it affords a possible means of disarming the criticisms of those few who are opposed to the natural and legitimate extension of the profession, it is to be hoped that the suggestion will be developed into shape for practical consideration by the national organization at an early date.

The accounting profession is indebted to the American Association for the excellent work of its committee appointed to canvass the bankers of the country, and its report as published is not only worthy of a place in the library of every practising public accountant, but the profession will receive much general benefit from a wide distribution of the book among clients and others.

F. G. COLLEY.

HOW TO INVEST MONEY WISELY. By JOHN MOODY. New York: *Office of John Moody*. 1912. pp. 177. \$2.00.

Written by a well-known authority on investments, this little book

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serves to whet rather than to satisfy the appetite for full information on an abstruse and difficult subject. It is written with simplicity of language, is free from technicalities, and consequently is intelligible to the general reader.

The book deals respectively with three subjects: diversifying investments, investing for profit, and classes of investments. Under the first two heads much information is introduced which the reader feels is the direct result of practical experience in the investment field. Some stale but prevalent notions about investments are carefully deprived of their force. An explanation is given showing why many so-called "gilt-edged" securities prove unprofitable, and why a proper diversification in other and perhaps less attractive investments will not only produce a good income but also insure the preservation of the principal.

In part three, typical stocks and bonds are listed, their main features indicated, and sample combinations made for investments of various sizes. This information is sufficient to start one on a more extended investigation into such securities as might prove attractive.

The accountant will find the book of value in so far as he may be called upon to judge the value of investments, or to give advice to his clients relative to possible investments; and it will serve as a handy manual to investors.

EARL A. SALIERS.

ADVERTISING AS A BUSINESS FORCE. BY PAUL TERRY CHERINGTON. New York: *Doubleday Page & Co.* 1913. pp. xv, 569. \$2.00.

This is a source-book of advertising literature composed chiefly of articles and extracts from *Printer's Ink*. One interested in the general features of the work of advertising will here find abundant information on various phases of the matter. The book is well systematized, and while too diffuse to be readily available as text material is a good reference work.

Each selection is carefully commented on by the compiler, but not to an extent sufficient to give the book the appearance of being the result of any great amount of work, other than appropriateness in selection of material. Nevertheless it performs the function of presenting in handy form a mass of varied and interesting information.

For the accountant the book may serve to throw considerable light on one of the big expense items of nearly every business. Two or three of the selections bear directly upon the importance of accounts in business enterprises.

EARL A. SALIERS.

THE SAVINGS BANK AND ITS PRACTICAL WORK. BY W. H. KNIFFIN. 1913. 551 pp., cloth. \$5. *Bankers Publishing Co.*

If there be one branch of banking science and practice upon which more than any other the state of New York may pride itself it is that which has been given the somewhat unsatisfactory title of the eleemosynary savings bank. Yet it is a remarkable fact that until recently there

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has been comparatively little literature on the subject and until the appearance of MR. KNIFFIN'S book there was not so far as the present writer's knowledge goes a volume which could be considered an adequate work of reference. America leads all nations in the aggregate and per capita amount of its funds entrusted to banks doing a savings deposit business and in some of the eastern states, most notably in New York, the faith of the public in the integrity and wise direction of the savings banks is so general that it is the exception to find the man or woman of moderate income who has not at least one savings bank account.

The story of the savings bank is brief in lapse of time but full of romance and alive with progressive activity. Probably no equally great field of financial action has ever been so rapidly developed nor, speaking generally, so blessed by the disinterested assistance of men of substance and reputation. The savings bank is today one of the great factors in the financial world—an eloquent testimony to the might of the union of small things. And it is cause for hearty gratification that with all its rapidity of growth and importance it has been so wisely governed both by statute and by trusteeship that possibility of loss of deposits is reduced to the least and the stability of the entire community is vastly strengthened in time of financial distress or crisis.

The author of the present work is one who has made a good name among the savings bank men of the state and his experience is such that he can speak with authority. Accordingly one picks up the book with that satisfaction which comes in anticipation—and is not a whit disappointed. It might be urged that the subject could well demand more extended notice than MR. KNIFFIN has been able to condense within the five hundred and fifty pages of his book, but considering the magnitude of the subject and the absence of fundamental literature no one can deny the excellence and comprehensiveness of the book. The author takes the reader through the history of the savings bank movement, both abroad and in this country, analyzes all the factors which made the movement and have carried it forward, compares the laws of states, and finally goes into a careful investigation of the theory and practice of the science as they are today.

The book undoubtedly will rank as one of the foremost authorities upon a most important subject.

A. P. R.

Washington State Board of Accountancy

William McAdam, C.P.A., and Rodney D. White, C.P.A., have been appointed by Governor Lister to act on the state board of accountancy of Washington in place of F. P. Greene, C.P.A., and J. P. Robertson, C.P.A.

Clinton H. Scovell & Company, certified public accountants, announce that C. Oliver Wellington, C.P.A., has become a member of the firm as from August 1st, 1913.

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The President's Address*

ROBERT H. MONTGOMERY

The year just closed has been on the whole an eventful one. We have not yet reached that happy condition where peace and prosperity so abound that the course of events leaves nothing to be desired.

The reports of Committees and the Secretary will show in part what has been done, but they will not reflect all of their activities. In the present state of our profession it is almost as easy to retrogress as to advance, and many problems have confronted the Committees and the Secretary, the wise settlement of which cannot, for obvious reasons, be commented upon in their reports. Therefore in considering the reports we must not forget to be appreciative of the vast amount of work done of which no record appears.

The membership of the Association is still growing, as will be noted in the report of the Trustees. The increase, however, is far from satisfactory. The demand for the services of accountants has outgrown the supply, and there is every indication that this condition will become more acute. Unfortunately, much of the demand arises during the first few months of the year, a time already congested beyond the limits of most practitioners. In my opinion the Federal excise tax did much to intensify this congestion, although there is an undoubted inclination on the part of most business men to call for a financial statement at the close of the calendar year.

The Secretary and the Committees on Federal Legislation have, during the last few years, spent an immense amount of

* Annual meeting of American Association of Public Accountants, Boston, September 15-19, 1913.

time and effort in persuading legislators that corporations, firms and individuals should have the right to report to the taxing authorities at the time of the year most convenient to themselves. As to corporations it is believed that a gratifying result has been achieved. I submit that this campaign in itself demonstrates the absolute necessity for a strong and active national organization.

But, assuming that accountants' work can be spread more or less evenly over the entire year, it is still apparent that our present membership is far short of what it should be. A considerable number of accountants are in practice who are not affiliated with the state or national bodies. Many of them are doing creditable work, and an effort should be made to add their names to the membership of the state societies and thus bring them into this Association.

If the demand for accountants' services increases to the extent predicted by many bankers who are in a position to know whereof they speak, it is quite possible that so much of the increase will be taken care of by those outside existing societies that our prestige will be affected. In any event, I submit for your consideration the advisability of directing that a survey of the situation be made without delay.

While I am in favor of a liberal policy towards those who are now in practice, and who are not members of a state society, I feel very strongly that ultimately we must insist on much higher qualifications than now exist for membership in this organization. Let us secure, if possible, the membership of all of the older men who are reasonably well qualified, but, as to the future which we hold out for the younger men, I favor the enactment of an amendment to Section 2 of Article II of the Constitution, whereby the practice qualification for Fellow members shall be, as of some future dates, five and seven years.

Too much importance has been placed upon the passing of the C. P. A. examinations. The large percentage of failures is due not to the unfairness nor difficulty thereof, but to the unpreparedness of the applicants. We have made it too easy for them in the early stages, and they feel aggrieved when they hear that only ten per cent. pass a given examination.

The profession of accountancy demands long years of practical training as well as theoretical preparation.

The objects of this Association, adopted twenty-six years ago,

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include an active interest in the standards of the profession throughout the country, and I think it is in order for us at this meeting to adopt resolutions calling upon the state boards of examiners to insist upon what is equivalent to apprenticeship for young men, and a gradual increase in the severity of the examinations.

On May 1st, 1913, I sent a circular letter to each member of the Association reviewing much of the work accomplished during the active part of the year. Therefore, at the present time I purposely omit specific reference to many of the important happenings of the year. Those who are genuinely interested in the welfare of the Association will be interested and instructed by a perusal of the reports of the Vice-Presidents, dealing with the manifold activities of the state societies; with those of the Committees on Membership, By-Laws, State Legislation, Federal Legislation, Journal of Accountancy, Education, Terminology and Credit Information and with that of the Secretary.

We have never had Committees which have done harder and more efficient work, and I ask every member of the Association to read their most interesting reports.

Our Secretary has been faithful and untiring, and he deserves all of the credit which he has received from individuals and societies throughout the year, and I am sure you will agree with me, after hearing his report, that we are to be congratulated upon our selection of an Executive Secretary.

We still lack one very important feature of a well-organized body—we are not properly financed. Our regular income is insufficient for our too modest requirements, and we are dependent upon a comparatively small number of individuals to make good our deficit. We must face the question squarely. If the work of the Association commends itself to you as necessary, and if progress is to be made, it is imperative that an adequate and creditable plan be adopted at this meeting.

In the past we have prospered and become strong through the recognition of our shortcomings and an earnest and unselfish effort to correct our mistakes and profit by experience. As a profession we have much to learn and perhaps much to unlearn, but, if we continue in our mutual esteem for each other and our undivided love of our chosen profession, we shall attain to greater fields of usefulness and honor.

Uniform Accounting Systems*

By EDWIN F. GAY

Dean of Harvard Graduate School of Business Administration

In discussing with professional accountants the subject of uniform accounting systems, it is not necessary to enlarge upon the importance of such coöperative understandings. This association has often considered the topic and knows both the advantages which accrue from uniform accounting, not only to the direct participants but to wider circles, and the limitations and practical difficulties which beset the adoption of such systems. It is a new experiment in this direction to which I shall call your attention.

A uniform accounting system may be imposed from above by the authority of the government. The national government furnishes a notable example of such action in its requirement that railroads engaging in interstate commerce shall conform in their accounts to the elaborate system worked out by the interstate commerce commission. Or a government, as in the case of the relation of the state of Massachusetts to its municipalities, may stimulate the adoption of uniform accounting methods by demanding periodical returns of schedules which imply, if they do not necessitate, some uniformity of classification in receipts and expenditures. The Bureau of Corporations of the national government again has found it necessary in its investigations of industrial costs to reduce divergent accounting methods to some uniform standard, a work entailing great labor on the part of its agents.

Similarly in the development of the large scale modern business enterprise, corporations controlling a number of plants engaged in the same industry or service have found it expedient to introduce uniformity in accounting methods. Corporative authority, as well as governmental, recognizes that such uniformity is an indispensable prerequisite for intelligent action based upon a knowledge of the comparative cost of doing business with a num-

* An address before the annual convention of the American Association of Public Accountants, Boston, September 16, 1918.

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ber of constituent plants or scattered units. The requirement of uniform accounting methods not only ensures that all the units shall introduce what is presumably a good system, of itself no small advantage especially in the case of the smaller or more slackly conducted concerns, but by comparison and analysis it makes possible the setting of standards. Knowledge of the facts replaces guesswork, and uniform accounting becomes one of the master keys to business economy and efficient management. This operates not only through the information which directs the action of the chief executive in such an organization, but through the emulation excited between plants or departments when their managers know accurately the costs in similar plants. Such emulation, it may be added, is in the day of industrial combination a useful substitute for competition.

When the advantages of uniform accounting methods are so obvious, it might be expected that they would be adopted voluntarily by groups engaged in the same business, particularly now that these groups have so generally organized themselves locally and nationally into associations. It is not uncommon in various industries to hear complaints of "cut-throat competition" and to be assured that these competitors with murderous proclivities are not so much unscrupulous as ignorant. They do not know accurately the cost of the commodity or service which they offer ; in other words, they have no proper accounting methods, and therefore, especially under pressure, sell at or below cost. There is both popular and legal objection to price agreements, and such agreements meet furthermore the practical difficulty of maintenance. Why not at least ensure, by the coöperative adoption of sound accounting, that competition shall not be ignorant of cost, that the competitor shall know, for instance, what "overhead burden" means, and agree on how to distribute it? If he insists on being a "cut-throat," let him at any rate sin knowingly and in the pitying sight of all. If coöperation to the extent of price-setting be impossible or socially inexpedient, there can be no objection to the lesser degree of trade coöperation involved in an agreement for uniform accounting.

But when government authority or corporative control is lacking, the adoption of this admirable expedient is not so simple as one unversed in the ways of the business world might suppose. I have lately made some inquiries concerning voluntary trade

coöperation in uniform accounting, but correspondence with the associations which I had heard were moving in this direction has disclosed the fact that, with a few notable exceptions, the movement has been neither far nor fast. Apparently a number of associations have discussed the subject; some of them have gone so far as to have a system of uniform accounting competently drawn up for the use of their members; but I have thus far found only one example of an association which has made a strenuous effort toward wide-spread adoption of such a system and has undertaken through a central organization to collect and disseminate knowledge as to costs and standards based on geographical averages of such accounting data.

This association is the organization of printers known as "The United Typothetæ of America." Beginning in 1909 under the auspices of the Typothetæ, a series of "cost congresses" were held and the enterprise then started has been steadily developed. Out of a possible 1,600 members, 800 have now adopted the uniform system approved by the association, while in addition there are possibly 300 of the members who are using a system which they individually consider satisfactory, though it is not the standard. The secretary of the Typothetæ, Mr. S. Evans Clark, believes that the association represents 75% to 80% of the invested capital in the printing business, and since at least 50% of their members are now using the standard uniform cost finding system, it is evident that approximately 40% of the total capital invested in one of the greatest industries in the United States is now operating under a system which makes possible reliable comparisons and standards of costs. This percentage would probably be increased if we could learn the number of printers outside the ranks of the Typothetæ who are using the same system. The secretary says that "quite a number" of these through the country have adopted the uniform system; and I am informed that in certain districts, notably in the Boston district, a very large percentage of the printers not in the organization of the Typothetæ are enjoying the advantages of this coöperation.

The chief difficulty which retards the rapid spread of a movement, destined ultimately, we may trust, to be of great importance in modern business organization, seems to be the suspicious individualism and the inertia of a large number of business men. It is significant that, even among the printers, the smaller busi-

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nesses, according to the reply of the secretary, "have not been reached to any extent," although "they are the ones who can be most benefited by a cost system." They harbor, we are told, the erroneous opinion that they cannot afford its installation. It is clear that a comparison with his own accounts of previous years is of benefit to the individual manufacturer or dealer, though there are too many of the smaller business men whose accounts are not kept with sufficient system to make this study very illuminating. But even those who grant the utility of such an historical survey of their own business are often difficult to convince that it would pay them to coöperate, so that they could make a contemporary comparison of their own with similar business concerns in the same line. If they are fairly successful, they are satisfied, or they say with profound conviction: "My business is different," and so comparison is useless. If they are not fairly successful, the reason for their ill-success is often the same as for their refusal to see the light which is shed by uniform accounting.

Representing the Bureau of Business Research of the Harvard Graduate School of Business Administration, I can speak on this subject with a strong belief in the great utility of uniform accounting and with some experience as to the difficulty of securing a wide voluntary adoption. In our study of marketing methods we found it essential to investigate fully the selling of various commodities, and we commenced with the retailing of shoes.

Although compared with the sale of other commodities such as drugs and textiles, this business is not especially complicated, it nevertheless illustrates, in its variety of product and methods of distribution, practically all the main channels from maker to user, through wholesaler and retailer, through dealer only, and direct to user by the manufacturers' own stores and by mail. For its retailing we find all the main types of retailer, the retailer with but one store and one commodity—footwear only; the department store in the city and the general store in the country with many commodities; the chain store, both manufacturer's and non-manufacturer's, local and interstate, with a varying number of stores handling footwear only.

The production of shoes has been fairly well standardized. Variations in production occur through changes in style rather than through changes in process. It is a staple for which as a whole there is a fairly even demand. There are fluctuations, but they

are caused mainly by style changes, and the problems of production seem to offer no disturbing factors in a study of distribution.

For these reasons the Bureau began its work upon the marketing of shoes and so far has given attention mainly to their retail distribution. The concrete task was to find out the operating costs of a large number of shoe stores and shoe departments, to group them according to the grade of goods and population of the community, and then to compare them.

In the summer of 1911 agents visited shoe retailers in Ohio and Wisconsin and soon learned that practically no two retailers kept their accounts in the same way, and that many kept insufficient accounts. Some, for example, reckoned profits on the cost, and some on the selling price. Some charged salary for their own time and rent for their own stores, while others did not. Some meant one thing by selling expense and some meant another. Allowances for these variations were made by the agents and some serviceable figures were obtained, but the need of a common basis of comparison was clearly seen.

In other words, a uniform accounting system was needed by the shoe retailers as it had been needed by the railroads and the printers. With such a system in use by shoe retailers differences in items would reflect differences in conditions rather than differences in accounting. The shoe dealers had no uniform accounting. This bureau set itself to work in the fall of 1911 to provide such a system. A joint committee composed of accountants of national reputation and of shoe men most representative in Boston and vicinity was secured. As a result of their labors and counsel and the work of the bureau, the Harvard system of accounts for shoe retailers was given to the trade early in 1912.

More agents of the bureau were out in the summer and fall of 1912 in the east, on the Pacific coast, and in the central west to explain and introduce the system and to secure figures direct from the books of shoe dealers. During the present summer of 1913, a larger number of agents has been sent into the field to cover with some care the ten states from which we had had the largest number of inquiries after the system.

Up to the present time, our attention has been confined in the main to shoe retailers of a rating of \$10,000 and more in places of 10,000 population and more. The sending out of circular let-

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ters has been extended to retailers rating at \$5,000 and more, and later still to those rating from \$3,000 to \$5,000, as listed in the Shoe and Leather Mercantile Agency general rating book for July, 1912, and January, 1913. But places of less than 10,000 population have not been circularized, although several hundred inquiries have come from these smaller towns. It is our hope that ultimately we shall be able to coöperate with the smaller retailers and the small towns; but since this field is expensive to reach, it has seemed advisable to undertake first of all the more promising territory.

Altogether, up to July 31, 1913, covering the two years and one month of operation of the bureau of business research, we have had 1,619 inquiries. To each inquirer a full set of the system has been sent, together with an explanatory form letter; and there has been a systematic "follow-up" of three letters to induce the inquirers to adopt the system.

We have distinguished for purposes of convenience "inquirers," "coöperators," and "adopters." From coöperators we have obtained information of much value in regard to their methods; and in the case of a considerable number of them we have had access to their books and figures which, although not kept on our standard system, are of value in our investigation. By adopters we mean those concerns which have installed our system of accounting and have furnished us with the confidential returns from their books. Preliminary circulars have been sent out to the number of 8,100; 1,619 have inquired for the system, and in addition there have been several hundred additional inquiries from outside the shoe retailers.

The following figures indicate the result in securing coöperators and adopters: Of 344 coöperating stores, 188 stores have furnished schedules only and 156 stores have given both schedules and figures from their books. One hundred and thirty-four stores have adopted the Harvard system of retail shoe accounting and are furnishing schedules and figures. This figure of July 31, 1913, has been materially increased by the work of the agents during the present summer, but it is impossible to state at the present time the exact number.* It is interesting to note that of the total of 478 coöperators and adopters 405 or 84.7% were secured by field agents, and 68 or only 14.2% have been secured by mail.

*On September 13th, the number of coöperators and adopters was 626 with returns from the agents not yet complete.

A further point is worth noting as indicating the necessity of active persistence in securing data of this sort. Of the total number of coöperators furnishing figures, 290, the number who have passed a subsequent inventory date since beginning to coöperate, that is, from whom we should expect a new return of figures, is 166. Of this 166, only 54 have repeated and 32 of these repetitions were obtained by agents. Up to the present our field agents have been occupied in the main in inducing new concerns to adopt the system; but it is clear that, to obtain the desired results, it will be necessary for the agents to visit periodically the concerns that have already shown sufficient interest to send us their first figures.

The bureau of business research, utilizing the resources of the university—both physical for the location of the central bureau, and of personnel, since instructors connected with the staff of the business school give their time freely to this work—is enabled to conduct such an investigation with a minimum of expense. Nevertheless, the cost of this work is a factor not to be overlooked. The total expense of the bureau to the end of July 31, 1913, that is, for two years and one month, has been \$6,344.14, and the cost therefore per coöperator and adopter furnishing figures both to agents and by mail is \$21.87, or the cost per adopter, \$47.34. Naturally with the development of this work and the increased interest which is being shown in investigation, it may be hoped that the cost per unit will show considerable decrease; but, nevertheless, the fact remains true that the work of investigation, like that of most educational effort, does not readily pay its own way.

The real work of the bureau, however, is to get precise and reliable information about business. The introduction of the accounting system was a necessity incidental to the carrying out of this work. The number of adopters, or the cost per adopter, is therefore not the fundamental criterion of accomplishment. Information has been secured that could have been secured in no other way, and information worth having. When this is borne in mind, from the points of view of the school and of the public, the \$6,000 or more dollars, it is believed, have been wisely expended.

Preliminary information based upon the returns so far gathered has been published in the first bulletin of the bureau of

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business research, giving the object and history of the bureau in brief, with some data on the cost of retailing shoes. It is expected that a year hence another much more complete bulletin can be published, with a basis of accounting materials sufficiently broad to enable certain standards to be established. Even from the limited material already collected, standards are evidently emerging; and it is with some confidence, therefore, that we may hope to render this service to the industry.

Since the first edition of our accounting system has now run out of print, it has been found advisable to undertake some revision of the system in the light of the experience which has been gained in the field. It may be of interest to state briefly some of the points which have created difficulty and to ask for criticism and comment. One of the chief obstacles which we have met, as far as the system itself is concerned, has been not so much its complexity as its appearance of complexity. Therefore in the revision, effort will be made to shorten and simplify the explanatory pamphlet and to make the accounting schedule itself more self-explanatory. The present accounting form with the suggested revisions is herewith submitted (see page —), and it will be noted that the chief changes suggested are as follows:

In the first place there is the question of buying expense. We are told that, except in very large concerns, it is practically impossible to determine buying expense. In smaller concerns much of the extra time involved in buying is done at odd moments when the proprietor or manager's time is not otherwise occupied. It involves not only inspection of samples and ordering, but also the examination of stock records and size-up sheets. It is proposed to meet the objection which has been made in regard to this account by substituting the account, "salary of manager or proprietor," and subdividing it into buying, selling and managing, asking for an estimated distribution of time between these items. This will have the additional advantage of making sure that the salary of the proprietor is included, which hitherto we have not been always able to secure separately and apart from accounts 10, 12 and 29.

A second point which has aroused much discussion has been the question of depreciation; and we have perhaps not made it sufficiently clear that we do not insist upon any particular method of depreciation, since this is not vital to our percentages of ex-

pense. We recommend three main kinds of depreciation, and we should like to know what method is used by our adopters. We merely emphasize that depreciation is necessary to the proper conduct of the business and that a statement regarding it should be made.

Another item is that concerning interest. Under our system, interest is deducted from net nominal profit under items 43, and 44, that is, it is not carried as an expense. It has been questioned whether or not interest should not be treated like rent and carried as an expense. If this were done, we should make sure that interest is charged, and it would also be clear that this item is a legitimate charge on business, whether as an expense or a deduction from net profit.

Minor points which are subject to change are the items covering returns and allowances (2 and 3) and freight and cartage. It is argued that returns and allowances are hardly worth keeping, since our 100% calculation begins at the net sale; and this is the item which we almost invariably secure because returns and allowances have already been deducted from the cash of the day in which the return is made; or if it be a charge account, the item of returns and allowances disappears in the customer's balance. In regard to freight and cartage, it is urged that freight and cartage is an expense and should no longer be deducted from the merchandise statement, on the ground that so long as freight and cartage is paid out of the store's till, it is logically an expense. As a practical matter, however, we have found it necessary to carry in our office two kinds of operating expense: one without the freight and cartage according to our system, and one with it, in order to meet the differences which we find in the methods of accounting among our coöperators.

It is furthermore suggested that the management expenses and fixed charges should be subdivided into two headings.

None of these changes already suggested affects the system vitally, but is simply in the direction of facilitating its introduction.

This work of collecting and disseminating information, now well established through coöperation between the dealers and the bureau, is primarily undertaken by an educational institution for its essential service in the study and teaching of the science of business. It is clear, however, that a wide adoption of the uniform accounting system will be of benefit to the coöperating

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dealer, since not only is he enabled to obtain by this means standards of comparison, but he is also able to obtain benefits which are likely to arise from continued close relationship with the bureau. Not only to the educator and to the shoe dealer are these results directly of importance; they will also serve the banker and the manufacturer in the intelligent extension of credit, thus indirectly benefiting the well-managed concerns in the business, and will further make possible the drawing of valid conclusions of great practical and theoretical importance in regard to the whole problem of market distribution of commodities.

The study of shoe retailing we hope will be followed by the study of a few other well selected and important commodities, and the investigation must include not only the cost of retailing but the cost of distribution on the part of the manufacturer and wholesaler. "The high cost of living" has attracted increased attention in recent years and has produced much speculation as to its causes. One important factor to be investigated in this problem is undoubtedly the cost of market distribution; but if economies are to be effected in this direction and if the public is to recognize the social and economic justification of the middleman in business, only a scientific inquiry such as this that Harvard has undertaken can make possible that knowledge of the facts which must precede any true remedy.

No.....

PROFIT AND LOSS STATEMENT FOR

A. MERCHANDISE STATEMENT:

I. (1) Gross sales.....	.....	....
Less: (2) Returns .....	.....
(3) Allowances .....	.....
<u> </u>	<u> </u>	
Net sales.....		....
II. Cost of goods sold—		
(4) Inventory at beginning of period..		
(5) Purchases at billed prices.....		
(6) Freight and cartage on purchases..		
<u> </u>		
Cost of stock handled.....	.....	....
(7) Goods on hand at end of period at billed prices.....		
Less: (7) Discounts on inventory		
(8) Depreciation and shrinkage		
<u> </u>		
(7) Present inventory....	.....
Net cost of goods sold .....		....
<u> </u>		
Nominal profit on merchandise ....	.....	....
III. (9) Discounts taken on purchases (really deductions from cost)..	.....	....
<u> </u>	<u> </u>	
Gross profit on merchandise..		

B. EXPENSE STATEMENT:

I. Buying expenses—		
(10) Salaries and wages of buying force .....	.....
(11) Other buying expenses.....	.....
<u> </u>		
Total .....	.....	....
II. Selling expenses—		
(12) Salaries and wages of sales force .....	.....
(13) Extra selling.....	.....
(14) Advertising: (15) Newspapers.		
(16) Circulars ..		
(17) Other, including displays	
(18) Miscellaneous selling expenses.	
<u> </u>		
Total

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III. Delivery expenses—		
(19) Salaries and wages of delivery force
(20) Other delivery expenses.....
Total .....	.....	.....
IV. Management expenses and fixed charges—.....		
(21) Rent .....	.....	.....
(22) Heat .....	.....	.....
(23) Light .....	.....	.....
(24) Power .....	.....	.....
(25) Repairs and renewals of equipment .....	.....	.....
(26) Depreciation of equipment.....	.....	.....
(27) Insurance on stock and equipment .....	.....	.....
(28) Taxes and licenses.....	.....	.....
(29) Management and office salaries.....	.....	.....
(30) Office supplies and expenses...	.....	.....
(31) Miscellaneous management expenses .....	.....	.....
Total .....	.....	.....
V. (32) Losses from bad debts.....	.....	.....
Total operating expenses .....	.....	.....
Net profit from operation .....	.....	.....
C. OTHER BUSINESS PROFITS (OR LOSSES):		
I. (33) Repairing: (34) Receipts.....		
(35) Labor .....	.....	.....
(36) Materials .....	.....	.....
Profit (or loss) on repairing...	.....	.....
II. (37) Hosiery: (38) Sales		
(39) Purchases .....	.....	.....
(40) Expenses .....	.....	.....
Profit (or loss) on hosiery....	.....	.....
III. (41) Extraordinary profits or losses (not connected with operation)....		
Total other business profits (or losses).....	.....	.....
Net nominal profit of the period .....	.....	.....
D. NET NOMINAL PROFIT APPLIED TO:		
I. (42) Interest on borrowed money.....	.....	.....
II. (43) Interest on capital or (44) Dividends on capital stock.....	.....	.....
III. (45) Final net profit, or surplus.....	.....	.....

The Development of Systems of Control

By F. R. CARNEGIE STEELE, C.P.A., F.C.A.

All modern progress tends towards an intensification of production. Under such conditions money is made more quickly, but also is lost more quickly. Not only competition, but the higher pressure of operation emphatically demand prompt and accurate knowledge, on the part of an owner or executive, of a great many things that might be safely guessed at a few years ago. In the past, the application of wonderful mechanical devices and the constant desire for increased output have led to the organization of enormous industries in order to minimize the effect of competition and develop the principle of "mass production" or increased tonnage, but such great industries will not be able to pursue that policy indefinitely, and efficiency in the future must take into consideration not only the expansion of production, but also the elimination of waste in production, so that administrative energy may be constantly directed towards the study and interpretation of operating conditions, and the conservation of materials, forces and men.

This thought was emphasized by President Woodrow Wilson, who, in his inaugural address, said, "We have studied, as perhaps no other nation has, the most effective means of production, but we have not studied cost or economy." Again, the *New York Times* recently stated in relation to tariff changes, "If the new tariff rates are enacted, the manufacturers of the country must have resort, not to the artificial protection of the tariff, but to the natural protection of their own abilities as managers, and of the skill and industry of their workmen, both alike contributing to a higher efficiency and lower cost of production. This means that factory methods must be re-examined to the end that waste of effort and materials may be cut off, that the best modern methods may be applied."

While the modern tendency towards intensified production has led to vast industrial expansion and to the creation of costly and complex manufacturing plants, it has also brought into existence

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correspondingly complex problems of management, so that the increased investment and the increased cost of maintenance call for constant productive activity and for the utmost economy in production, in order to realize an adequate profit or even to escape a heavy loss. Intelligent economy, however, is dependent upon accurate accounting for development and guidance, because the basis of efficiency is knowledge, and in commercial matters, particularly in the affairs of the factory, this means a close watch upon detail, and at no time has this care in supervision been more essential to success than at present. Moreover, under modern industrial conditions, the specialization of workmanship, the division of duties, the limiting of subordinate responsibilities—each restricted within narrow limits by sharply defined regulations—have undoubtedly reduced the variety of operations of the individual workman, but they have vastly increased the responsibilities of the executive, consequently it has become impossible for an executive personally to supervise the acts of each employee, and there is being established a new relation in executive responsibility, and a pressing need for counsel in determining the true effect upon operating results of every economic factor and of every business policy.

As a result of this new condition, a corresponding development is taking place in the science of accounting. Like other specialized branches of knowledge, it is continually improving and becoming more efficient, and the fact is being recognized that the simpler accounts of earlier days are quite inadequate in modern industry. Costs, which are incurred on a much larger scale for the purposes of larger production, are also incurred in less simple ways, so that analytical methods of accounting have become essential to any continuous, effective grasp of the workings of modern business. The old accounting is, of course, incorporated in the new. The cash book and the profit and loss account and the balance sheet are substantially what they always were, but the new accounting intervenes between the original expenditures in the former and the final results in the latter, to distinguish between profits and losses, and to trace wastes and to compare efficiencies. This principle of analytical operating accounts is applicable to all productive operations: equally to all factory operations, to mining and smelting, to agricultural operations and wherever human labor produces materials from the earth or converts them from

one form into another. The new accounting, therefore, is deeply concerned in the investigation of the auxiliary expenses of manufacture which will lead to the determination of proper standards for them, and it takes cognizance of the manner in which, in practice, there have been variations from such standards and of the changes in conditions governing them. Modern industrial organization, in fact, requires that there shall be a very close relationship between the accounting department and the factory, in order that there may be exercised an immediate influence in the direction of the elimination of waste, for where there is constant pressure to perfect the accounting there is of necessity constant pressure for good organization and a consequent economy in production. Through the use of highly systematized records, modern accounting methods have become, in short, instruments of precision, to an extent unguessed by those who have not followed their recent developments, which all constitute logical steps in a system of analysis and organization tending towards a high degree of industrial economy. Without doubt, it is the invention of machinery that has made necessary this evolution of system, but the latter is not an imitation or repetition of the former; it is a supplementary and completing development, for system neither manufactures nor sells, nor keeps those two activities in adjustment with each other, yet it facilitates all of those things. A system, of course, should be a unity, and no statistics should ever be accepted on which action is desired to be taken that are not interlocked with and vouched for by balancing with the financial books.

Systems of operating accounts and records should be formulated with a single guiding principle—that they must furnish *means of control*. The means of executive control must be knowledge of the workings of the business of which one is the executive head. This implies a current and a classified and more or less detailed knowledge of the results of the work of the whole body of subordinate officials, and it implies a current knowledge of the effectiveness of the final work of the executive himself, namely, the direction of all the activities of the business to the desired profit-making ends. There is no more important subject to be considered than the question how far executives commonly possess such knowledge and the ways in which it may be systematized and perfected. Four qualities in it will largely determine its value:

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- 1st, Its fulness.
- 2nd, Its promptness.
- 3d, Its form.
- 4th, Its *known* reliability.

Other things being equal, the value of knowledge must depend on its fulness, and it is equally important that it shall be knowledge of the immediate present and not of a time which is past. Upon the form in which such knowledge is communicated depends the possibility or facility of grasping its significance, and the use that one dares to make of it depends upon the assurance one feels as to its accuracy.

The ordinary profit and loss account usually sums up the results of a multitude of operations during a comparatively long period. In some respects it has the characteristics, and in some respects it has exactly the opposite of the characteristics of the information which should be the means of executive control. It expresses the results of a group of transactions in a single figure, it contains within itself the verification which is the result only of double-entry bookkeeping, and it is ordinarily and substantially of accepted reliability. On the other hand, it groups the results of very various operations in such a way that it may include the good, the bad and the indifferent, and there is nothing to show the distinction between them. And further, it states results after masses of transactions have been brought to their conclusions, and the conclusions are beyond further influence or change. The executive must have the means of distinguishing promptly between the good and the bad, and must do it while the operations are in the stages where they can still be guided to the conclusions which are desired.

It is clear that the annual profit and loss account shows the sum of all the profits that have been made, less the sum of all the losses that have been made, and if these can be separated, then the distinction between the good and bad is beginning to be made. Now the separation of profits from losses is capable of being made in two distinct ways, each of which has great usefulness. As the cost of each contract, or of each article sold, is determined, every billing to a customer has an ascertained profit or loss. Gains and losses, however, do not consist alone of margins between selling prices and essential (*i. e.*, proper and necessary) costs. There

are gains and losses which it is possible to charge (and which from a certain point of view may be accurately so charged) to specific units of product, which are yet more properly and much more advantageously separated and grouped under headings significant of their causes. Undue shrinkages in materials; defectives above normal percentages, according to the character of the articles and the liability to defects in manufacture; expenses which are directly traceable to mistakes in the department responsible for design, or the department responsible for the supply of materials, or the department responsible for the manufacturing; all these are hidden if they are included in the cost of the articles manufactured, and are disclosed for criticism and investigation if they are charged to accounts which, by their titles, clearly indicate of what nature the losses are.

All of these things relate to a subject which calls for the highest qualities of administrative and accounting skill, *viz.*, the elimination of waste in production. In the conduct of most industrial enterprises there is, as yet, no adequate recognition of the possibilities of savings in modern manufacturing processes, and of the means to be utilized in the detection and prevention of waste, through the investigation of the auxiliary expenses of manufacture. Without doubt the vital purpose of all operating accounts is the elimination of waste in the employment of the resources of production, and the essential character of such accounts, therefore, is exhaustive analysis, that is, an analysis of expenditures as well as an analysis of the conditions under which expenditures have been incurred and results have been obtained. This end can only be accomplished by the full development and coördination of the energies and abilities of many classes of workers and cannot be accomplished if the accountant unduly restricts his survey and limits his purpose. Moreover, if accurate classifications are to be made, the accountant must have more than a superficial knowledge of the things classified, and if the object of operating accounts is to disclose waste in order that waste may be eliminated, then the accounting must not terminate abruptly on the surface of operations or at the outward aspects of any department, but must furnish a current revelation and interpretation of actual operating conditions.

Merely determining the costs of products may be accomplished, even where there is no thorough knowledge how far scientific

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standards of economy are departed from, or what possibilities of savings unfold themselves and pass unheeded for lack of trained observation. To arrive at the separate cost of each product is, however, only one step. Wherever this, and this only, is accomplished, the fact that the cost of the same thing varies from time to time, of course, will be disclosed. It may vary only a little, or the variations may be very wide, and some causes of these variations will be discoverable from such limited but true cost accounts and some will not. If, for instance, a shoe manufacturer should purchase upper leathers and sole leathers and cut them up and make them into a certain kind of shoes, and, when the operation had been completed, learned only that the shoes had cost so much per pair, such information would leave much to be desired. No light would be thrown on the value secured in purchasing the leathers, or on the efficiency of the cutting operations, and it would be doubtful whether repeating the operation would again give the same cost or a different one. Obviously, the records for the sorting and cutting of such leathers ought to show the gains and losses which are highly significant of the values secured in purchasing and in cutting. Not only in the shoe industry, but also in many others there is no difficulty in separating these gains and losses that are caused by materials varying from standard qualities, and the accounting system should always be governed by the necessity to state figures which are significant of causes and effects if it is to be serviceable for purposes of control. And there are many manufacturing wastes which can only be detected and prevented by still greater refinements of analytical investigation. Wherever a factory is using raw materials which depend, as to facility of working, or as to the quantity or quality of the product obtainable from them, upon chemical characteristics, there is presumptive need for a systematic laboratory control. The chemical analysis of such materials, together with whatever physical tests may be proper and necessary, should establish all variations from a standard quality, or from the quality which corresponds to the particular price paid, and the accounting plans should provide means for determining the value of these variations and for stating them as separate gains or losses. This, at the outset, establishes the principle that causes affecting costs are not to be confused with each other, but each dealt with separately and its effect intelligibly stated. As a simple illustration of the

development of this analytical principle, it may be mentioned that a certain corporation in Massachusetts, whose annual expenditure for the item of fuel alone exceeded \$250,000.00, recently inaugurated a system of chemical analyses and boiler tests of fuel in order to ascertain exactly the relative efficiency of various grades of coal used and the number of their heat units per dollar of cost, with the result that a saving of more than twenty-five per cent. was effected, while the same corporation also found it highly advantageous to adopt similar methods in regard to its purchases of cylinder and engine oils.

For purposes of administrative control in the conduct of all productive operations, the study of the causes of shrinkage, or loss, or waste of materials in the processes of their conversion from the raw state to the finished products is of the highest importance. Such losses, of course, may be entirely physical and visible and separated, as are all kinds of cutting losses, and they are then subject to one or another kind of physical measurement. They may be minimized through improvements in design of product, through care in avoiding spoiled units of production, through efficiency in the purchase, care and issue of materials, and through seeing that materials are not allowed to become obsolete, but their occurrence and their incidence should always be clearly defined in the system of accounts. On the other hand, they may be either physical or chemical and not visible, as in the case of materials which may be washed away in solution or not in solution, an example of which occurs in the paper-making industry. Consequently, all manufacturing wastes, except those which are visible and to which physical measurements can be applied, call for laboratory investigation if they are to be analyzed and assigned to their various causes. Accounting can, generally speaking, determine the quantities of such wastes and show their rise and fall, indicating general efficiencies and showing net results, but it is through the work of the chemist in conjunction with process accounts that certain causes and their operation can be traced and connected with money values and with their ultimate effect upon profits. Prior to the advent of the chemist in iron foundries, little definite information existed as to the cause of the foundryman's troubles from bad castings. Pig iron was bought on fracture, and, to correct "hard" castings, cracks, shrink holes, etc., rule-of-thumb methods in changing the mixture were fol-

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lowed, with varying degrees of success. A short while ago, a New England foundry had an epidemic of cracks in its product, which only became apparent after machining, when it was too late to check the heavy loss that resulted from defectives. The usual resort to changes in the cupola charge was had, without avail, and then a chemist was consulted. Samples of all the pig iron and coke were analyzed, and, to the surprise of the foundry foreman, much of the iron was found to contain sulphur and phosphorus in excessive amounts, while a dearth of silicon appeared in other lots. With the analysis at hand, however, it was an easy matter to calculate a cupola charge that produced satisfactory castings while using up the poor iron. Subsequently, purchases of pig were made on analysis, all shipments were sampled and analyzed, and the raw material being known, it became a routine matter to control the cupola output.

In the conduct of business there are two things the value of which is perfectly established and is not questionable. One is the judgment developed in the course of the long experience of the practical man, and another is the systematic comparison of the figures of a business from period to period. Therefore, in any industry involving chemical processes, if the chemical facts are definitely related to the varying financial results, the observation and memory of the practical man are developed into exact and inclusive and recorded knowledge, and most valuable comparisons, which deal not only with results, but with the causes that lead up to them, then become available.

In developing the principles of administrative control, consideration must be given also to another kind of waste or loss which is by no means customarily separated in the operating accounts, but which usually can be separated, and with advantages that are not yet fully recognized, namely, the cost of factory capacity not operated. Losses from under-operation of factory capacity are just as much actual losses, and have just as sure an effect on the profit and loss account as losses from waste of materials, for instance, or from bad debts, and to guard against waste of factory capacity is as important as to guard against waste of materials.

The statistical study of what is actually taking place in industry, and the observations of practical men, themselves actively engaged in manufacturing, coincide as to the diminishing importance

of labor as a factor in cost. On the other hand, as the importance of machinery and equipment as a factor in cost increases, it becomes much more essential than it formerly was to ascertain all the facts regarding the current use of such equipment, to the end that when from any cause machinery is not wholly and fully employed, the cost of such wasted factory capacity may not create wholly arbitrary variations in the cost of individual operations. When, however, these fluctuations are eliminated, costs are on the same basis whether the plant is busy or idle, and the executive knows at how low a price he can afford to accept an order so as not to lose on it, while the separation of the loss due to idle capacity into a separate item in his accounts enables him to see also the exact measure of his need for more business and to shape his quotations accordingly, after giving due consideration to whatever may be involved in the alternative sacrifices of lower selling prices or partial idleness.

And, wherever volume of business presses upon the capacity of a plant, its full utilization becomes as much a matter of immediate income and expenditure as the expense of materials or labor—of income, because that depends on maximum output, and of expenditure because the cost of adding to plant depends upon the adjustment of such additions to actual needs. When sales rise or fall, manufacturers naturally expect a rise or fall in profits, but it is a matter of experience that they are often surprised, and sometimes incredulous, at the extent of the effect that has been produced in the one direction or the other, though it is plain that the manufacturer is always paying a part of the cost of every unit of a maximum product, and, when he sells less than the maximum, he is paying for something which does not become available to sell again. Nevertheless, attempts to fix sale prices on the basis of shop need have hitherto been largely nullified by the use of varying percentages in distributing so-called "burden," because in all percentage systems the cost of factory capacity not operated has been obscured in, and charged along with, utilized capacity, as an increased total incidence of expenditure. When the "costs" on such a basis are highest, the need of the shop for more business is greatest, but if prices are raised because costs are higher, business is lost, as the customer cannot be made to pay for bad business conditions in the factory. The full operation of a factory depends upon engineering, and mechanical and commercial

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efficiency. If the cost of falling short of full operation is constantly and clearly stated, the units of idle capacity being identified and the causes traceable, a very different result is apt to follow from that which may be expected where merely vague ideas exist or, indeed, where any condition is expressed in terms less forcible than those of dollars and cents.

In briefly reviewing the subject of systems of control, and in considering the question how far executives commonly possess current knowledge of the direction of all the activities of their business to the desired profit-making ends, and how such knowledge may be systematized and perfected, it becomes evident that with modern accounting the annual profit and loss account can be split into its significant factors, and these can be expressed almost day by day for the information of the executive in such form that no vital aspect of the things which are transpiring shall escape him, and yet without overburdening the administrative head of even a very large business. There is, of course, much current information which should also be furnished to the manufacturing executive, but which is not disclosed by any division or analysis of the profit and loss account, because the items of it do not primarily relate to any factors of the latter. Such are the capital expenditure or investment in plant, and the rise and fall of the volume and consequent value of storehouse materials, and of work in progress, and of finished goods on hand. Then there is all the statistical information concerning sales. And finally there are the things which do not immediately affect either profit and loss or capital accounts, but which are of great importance because of their effect upon prospective business, and of this nature is the matter of delay in shipping goods, or in bringing contracts to completion. But, unquestionably, the executive requires and should have the means of knowing currently, and as fully and promptly as possible, where profits are made and where losses are made; the points in the operations, the times and circumstances of undue shrinkage, or waste, or breakage; the development of qualities in design or material, or labor, or organization, by which an increase or decrease in the quantity or quality of the product is caused; the times and circumstances and the cost of unused factory capacity; the measure of the accuracy of the work of estimating, as disclosed by comparison of estimates and subsequent costs; and

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so on, according to the vital aspects and the turning-point of gains and losses in the processes and ramifications of the industry dealt with. For administrative purposes, the measure of advantage to be secured in all of these things must depend upon the foresight which makes it possible to deal with them with deliberation and not in the hurry of emergencies, and this foresight is impossible, except through the means of exact records, developed under a proper system of control.

The Mission of the Public Accountant

BY FRANCIS B. SEARS

Vice-President National Shawmut Bank, Boston.

The necessity for the work of the public accountant has arisen from the great expansion of business in recent years. It may be interesting as well as profitable, therefore, to review briefly the growth of our commercial and industrial enterprises from small beginnings. More than thirty years ago, Robert C. Winthrop, himself holding high rank among the orators of his own day, referred to a well-known passage from the speech of Edmund Burke in the House of Commons on *Conciliation with America*. "After the lapse of more than one hundred years," said Mr. Winthrop, "these words still stir the blood like a trumpet." No other words can so well describe the early stages of American enterprise.

"As to the wealth which the colonies have drawn from the sea by their fisheries, you had all that matter fully opened at your bar. You surely thought those acquisitions of value, for they seemed even to excite your envy, and yet the spirit by which that enterprising employment has been exercised ought rather, in my opinion, to have raised your esteem and admiration. And pray, sir, what in the world is equal to it? Pass by the other parts and look at the manner in which the people of New England have of late carried on the whale fishery. Whilst we follow them among the tumbling mountains of ice, and behold them penetrating into the deepest frozen recesses of Hudson Bay and Davis Straits, whilst we are looking for them beneath the arctic circle, we hear that they have pierced into the opposite region of polar cold, that they are at the antipodes and engaged under the frozen serpent of the South. Falkland Island, which seemed too remote and romantic an object for the grasp of national ambition, is but a stage and resting-place in the progress of their victorious industry. Nor is the equatorial heat more discouraging to them than the accumulated winter of both

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the poles. We know that while some of them draw the line and strike the harpoon on the coast of Africa, others run the longitude and pursue their gigantic game along the coast of Brazil. No sea but what is vexed by their fisheries, no climate that is not witness to their toils. Neither the perseverance of Holland, nor the activity of France, nor the dexterous and firm sagacity of English enterprise ever carried this most perilous mode of hardy industry to the extent to which it has been pushed by this recent people—a people who are still, as it were, in the gristle, and not yet hardened into the bone of manhood. When I contemplate these things, when I know that the colonies in general owe little or nothing to any care of ours, and that they are not squeezed into this happy form by the constraints of a watchful, suspicious government, but that through a wise and salutary neglect a generous nature has been suffered to take her own way to perfection, when I reflect upon these effects, when I see how profitable it has been to us, I feel all the pride of power sink and all presumption in the wisdom of human contrivance melt and die away within me. My rigor relents. I pardon something to the spirit of liberty."

If Edmund Burke, Charles James Fox and other friends of 'America had prevailed, and the wise and far-sighted colonial policy of Lord Chatham had been continued, we might now be loyal subjects of King George V. What stage of development we should have reached under a colonial government it is not our purpose to inquire. Our commercial and industrial progress in the first half of the nineteenth century makes that period a most interesting part of our history as a nation.

The merchants of that day sent out their ships to be gone a year or two years, to the northwest coast, to China, to India or Russia, and to encounter dangers, not only from the seas, but from British cruisers, French privateers and Malay pirates. Let us recall a few names. William Sturgis was a Barnstable boy, and, like many other Cape Cod boys, went to sea. At nineteen years of age he was the first mate of a merchant ship on its outward voyage. When a few days from port the captain died, and the boy of nineteen took command of the ship and carried out the voyage to a successful and profitable termination. A few years

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later, as captain of a ship, with another Barnstable boy, Daniel C. Bacon, for his first mate, while lying off the mouth of the Canton River waiting for a pilot, he was attacked by twenty-six pirate craft, but they were beaten off, and he reached port in safety. Later he was a member of the firm of Bryant & Sturgis, one of the most successful mercantile firms and shipowners.

John P. Cushing, a Boston boy, when sixteen years of age, was in China on a visit to his uncle, who was the resident partner of the firm of Perkins & Company. The uncle died suddenly, and as the day of telegraph and steam transportation had not yet come, some time necessarily elapsed before the news could be conveyed to the home office and another representative sent out. The boy of sixteen, however, took charge of the firm's interests, and managed them successfully in the interval. Perhaps the last of those great merchants was John M. Forbes, whose figure was once familiar to some of us as he walked the streets of this city carrying easily the burden of more than eighty years. During the Civil War he was the counselor of Governor Andrew and President Lincoln and the Secretary of the Navy, but although the foremost citizen of Massachusetts, he continued in private life and never was a candidate for office. I have selected these few names from our local history, but other cities—New York, Philadelphia, Baltimore and inland cities such as St. Louis—also have their rolls of names not less distinguished for commercial enterprise, integrity and public spirit.

These great merchants found no more need for the services of public accountants than did the hardy fishermen described by Burke. Their enterprises, while large, were comparatively few in number and did not call for an elaborate system of book-keeping. A certain business man of this city was said to carry the details of his business in his head, and, when the account of his bookkeeper did not agree with his own recollection, he declared the bookkeeper was wrong. An eminent lawyer of this city, also of an earlier day, had little respect for accounts and accountants, and once, when a client came in with an indignant inquiry why a bill which he had paid was sent to him a second time, the lawyer complacently explained that their accounts were kept by double entry. The banks of a hundred years ago dealt with comparatively few persons, and loaned their money on public securities, or on paper bearing the names of two or more

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responsible persons or firms. The operations of most merchants were well known to others, as well as their manner of living, and their probable worth was estimated closely.

The little book in my hand was published in 1846, and is entitled :

OUR FIRST MEN A CALENDAR OF WEALTH, FASHION AND GENTILITY

It contains a list of those persons in Boston credibly reported to be worth \$100,000 or more. Probably these estimates are more accurate than the estimates of the mercantile agencies of today, also more interesting because of occasional personal comments, a few of which are sufficiently interesting to be quoted here.

Of one gentleman it is said that his firm are "Religious booksellers. In times past, the only profitable bookselling in New England, and still a very extensive business." Today the latest novel probably has as wide circulation in New England as a volume of sermons.

Of another it is said, "He has a great taste for music, is President of the Boston Academy, and the Boston public is greatly indebted to him for the chance enjoyed of late years to hear something of music besides psalm tunes." This, however, was not the well-known gentleman to whom we are indebted for the Symphony Orchestra.

Of another gentleman it is said that his parents had a great desire to give him a college education, "but Henry was hard to learn, and Parson W—— said it was of no use to try to send him to college—better make a blacksmith of him." Nevertheless, the young man won a degree from Harvard University, and had a successful career in business.

Of another man we learn that he "was educated a doctor, but born a speculator. After many ups and downs he has come out rich at last."

Information regarding a young lawyer who inherited a fortune is to the following effect: "Left to himself, if his money does not make him lazy, luxurious and good for nothing, as it has so many other promising young men—he will be apt to devote his attention to poetry and fine arts, for which he has a decided aptitude."

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It is pleasant to know that later the artistic career of this gentleman was brilliantly successful.

One more quotation is worth giving, as it is perhaps the best. "We had almost forgotten to mention that Colonel — most gallantly serves his country in the dusty field as commander of the Cadets, braving all extremities of frost and rain, that the Governor and the General Court may be safely escorted, on their perilous march from the State House to the Old South, to hear the annual election sermon. The Cadets consist mainly of young sprigs of nobility, and the patriotic and high-souled endurance by them and their commander, of all extremities of wind and weather in this arduous service, never can be enough commended."

We may pause here to suggest that the books of the mercantile agencies would perhaps take their place among popular literature if they would include these little personal details. Perhaps some enterprising young man will undertake to consolidate a mercantile agency with some society paper, like *Town Topics* (if such consolidation should not be found contrary to the provisions of the Sherman Act), and publish a work not only of much usefulness, but of absorbing interest.

Fifty years ago the Civil War was in progress, checking for a time the growth of the nation. As a malignant parasite can be removed from the human system only by a surgeon's skill, so, perhaps, the rough surgery of war was necessary to remove slavery from our social system. The cost was appalling, as we contemplate it even at this distance of time. Thousands of millions of dollars were spent during the war, and thousands of millions more have been spent since in pensions and other war expenses. The consequent taxation has been and will continue to be a heavy burden upon the industries of the country. Yet a still greater loss was the hundreds of thousands of lives, in many cases the best lives of their various communities, in the vigor of young manhood. The extent of this loss cannot be stated in figures. Still further evils followed, as always in the train of war. Large issues of irredeemable paper money and enormous expenditures of borrowed money led inevitably to speculation, extravagance and recklessness in incurring debt by states and municipalities, as well as by individuals and corporations. Unfortunately our national habits and characters appear to have undergone a permanent change, and thrift, simplicity and rugged integrity are fre-

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quently referred to in a sneering, or, at least, in a patronizing tone, as old-fashioned virtues. The evil effect of Government paper money (which in fact is not money) has found expression in the bill for currency and banking reform now before Congress.

In the fifty years succeeding the war enormous progress in material development and increase of population has taken place. The population of the country has grown from thirty-two millions to nearly one hundred millions. Wonderful inventions for the use of electricity in business and in domestic affairs have been made, and greater things are to come. The mineral and agricultural resources of the country have been developed so as to produce vast wealth. The country has been covered with railroads, and great economies in the cost of transportation of passengers and merchandise have been effected. Competition has tended to concentrate a number of business activities under one management, and in such an aggregation it is impossible for one mind to grasp all the details. In the place of many small stores we see large department stores. In some cities we find mail-order houses selling from catalogues through the mails all articles from a cake of soap, or a case of needles, to a house or a piano. The banks have not led in this expansion but have followed, adapting their facilities, so far as possible, to the large demands upon them under changed conditions. Credit is granted by merchants and banks to houses in all parts of the country. The notes of Boston houses are sold in the cities of the West, and the notes of Southern and Western houses are sold here and in New York. Notes given in payment for merchandise are almost unknown, as every house in good credit borrows money from banks directly or through note-brokers, and pays its merchandise bills promptly to avail of the cash discounts. It has become necessary, therefore, for banks and merchants, in order to grant commercial credit safely, to have intimate knowledge of the affairs of firms and corporations throughout the United States. It is also necessary for the large corporations and merchants to have some outside assistants to secure for themselves close and accurate knowledge of their own affairs. To meet this need the certified public accountants have found a rapidly increasing demand for their services.

The standing of the men engaged in this business and the efficiency of their service have usually been of a highly satisfactory

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character. There are some points, however, which as yet have not been fully covered by their examinations, and it is my purpose to call attention to some of these points, not in a critical, but in a friendly spirit.

Within a few years a firm, whose accounts had been examined by accountants, failed, and an examination of their books by a committee of creditors disclosed serious defects in their accounts for several years preceding. Some of their merchandise, which had been charged up to customers, was included in their inventory, and the charges for the same merchandise were included in their accounts receivable. No closing entries of their books to carry forward their accounts from one year to another had been made. The books of each year were opened with arbitrary entries under orders from the partners and did not represent the actual condition of the firm. The certificate of the accountants therefore showed the results of a year's business beginning with arbitrary and misleading entries, and no certificate should have been put out without the qualification that it was impossible to verify the condition of the firm at the beginning of the year.

Perhaps the most difficult point for the auditors to cover is the inventory of merchandise. In order to make the auditor's report a satisfactory basis for credit, the inventory, as well as the other items, must be substantially correct. I once had occasion, in company with another bank director, to look over the accounts of a manufacturing firm. They very frankly opened their books to our inspection, and the firm appeared to be doing a profitable business and to have an adequate capital. Among other questions, we asked if an inventory of the merchandise was taken each year, and we were assured that such was the case. For some reason, or rather intuition, we decided not to continue the loan without security. A year or so later the firm made an assignment, and I was interested to inquire what was wrong in the accounts. It appeared that no actual inventory ever had been taken at the factory during a period of years, but only an estimate made up from the books at the office, and, when the inventory was taken at the factory, the actual amount of merchandise there and, consequently, the amount of the firm's assets were found to be much less than called for by the books. This problem, most difficult but of supreme importance, is worthy of your careful attention.

There are other problems which are not for you alone to solve, but in the study of which your work can render material assistance. One of these problems is to reduce the excessive cost of distributing merchandise from the producer to the consumer, and so to reduce the cost of living. It is a quite common practice now for manufacturers to deal directly with retailers, eliminating the profits of the wholesaler or jobber. Still, the amount added to the cost of merchandise in the process of distribution is sometimes startling. I have been recently informed by the owner of a large shoe factory that shoes of a certain grade are sold from his factory at \$1.20 per pair. That amount covers all the cost of material, of labor and selling, interest on capital, depreciation and a reasonable profit to the manufacturer. The wearers of those shoes pay \$3.00 a pair for them. Sixty per cent., therefore, of the retail cost is required to move the shoes from the factory to the buyer. There are no intervening profits of wholesaler or jobber in this case, and it cannot be alleged that the retail shoe dealers, as a class, are men of large wealth. Undoubtedly these same conditions prevail in other lines of industry, and probably result from several causes. The retail merchant often assumes expenses for rent, salaries, fixtures and equipment out of proportion to the volume of his business. Often he does not watch his credits carefully and collect his bills promptly, and therefore his losses from bad debts are comparatively large. Frequently, also, he carries an unnecessarily large stock of merchandise, thereby increasing his interest charges and perhaps incurring losses through changes in style. He is led into extravagance by the demands of his customers, who insist on immediate attention, and who order largely by telephone, sending several orders a day where one would suffice. Your examinations will help in many cases to show where economy may be effected without impairing efficiency.

The item of indirect or contingent liabilities is sometimes of great importance. Where the item covers only endorsements on good paper, quite certain to be paid at maturity, such liabilities do not greatly imperil the security of the creditors. A recent failure in a distant part of the country disclosed operations by the active partner of the failed firm large in volume and having no legitimate connection with the firm's regular business. A badly tangled state of affairs resulted, and equitable adjustment of the

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various claims was an almost hopeless task. The outside operations of a partner or of an officer of a corporation cannot always be detected by an examination of the books. There are certain safeguards, however, which can be adopted, at least so far as the issuing of notes is concerned. The by-laws of some corporations require the written approval of a director upon all notes, and in such case the director should countersign the entry upon the note-book as well as the note itself. As, however, directors sometimes attend to such duties in a perfunctory manner, a number of corporations have recently adopted the practice of registering their notes with a bank or trust company. The purchasers of notes quickly learn of such a practice, and, to some extent at least, would give the preference to notes issued under such safeguards. The general adoption of this policy will add greatly to the thoroughness and certainty of an accountant's auditing.

The making up of the profit and loss account requires careful scrutiny. The treasurer of a Massachusetts corporation once assured me that the expense of all repairs and improvements upon his plant was charged to profit and loss each year. So it was at first. On examining his accounts, however, I found that at the end of each year he was accustomed to revalue his plant, add the cost of all improvements to the book value of the plant, and credit the increase as part of the profits of the year.

Another small manufacturer had his books properly opened by a professional accountant, and, as his plant was receiving some additions, the estimated cost of such improvements was added to the cost of the plant and a temporary credit made to suspense account. When the repairs were paid for, however, the amount was added again to the cost of the plant and the suspense account merged in the profit and loss balance. In my judgment neither of these men intended to deceive their creditors, and the mis-statements were due to ignorance, not to any lack of integrity.

In another case the bookkeeper of a large manufacturing firm, receiving a salary of \$3,000 a year, had not entered up for a long time discounts to which customers of the firm were entitled on cash payments. As a result of this neglect, the books of the firm were utterly untrustworthy, both as to the profits of the firm and the amount of the accounts receivable. In some instances the firm actually owed money to customers from whom balances were apparently due according to the books. Men are frequently un-

willing to admit even to themselves that their business is not profitable. In a majority of cases where a man has deceived me as to the condition of his business, he has deceived himself first. A profit is always desired, and one is tempted to show a profit by overrating assets and also by neglecting to make proper charges for depreciation of buildings, equipment, or merchandise unsold and perhaps unsaleable.

A manufacturing plant like a railroad must have a considerable amount spent on it each year from current income in order to maintain its efficiency. A manufacturing firm or corporation which divides all its profits among shareholders or partners will soon fall behind its competitors, its product will deteriorate, and its best customers will be lost. An actual extension of a plant may perhaps be financed by fresh capital, or by borrowing, but even so a part of the earnings each year should be used for improvements, and the time invariably comes when old equipment must be replaced by new.

Gentlemen: the bankers, the merchants, the manufacturers all recognize the importance of your work, and each year shows their increasing reliance upon your services. They expect you constantly to improve your methods, so that no loophole will be left for deception through dishonesty or incapacity, and they cordially wish you the highest degree of success in all your undertakings.

Charlatanism in the Profession of Accountancy

By C. V. ROWE, C.P.A.

In professions which are amply guarded by restrictive qualification standards it has so far been found impossible to eliminate the charlatan. We are all more or less familiar with one type of charlatan—the quack doctor, who parading the public highways, preceded by a brass band, accompanied by clowns or by some other such attributes of a circus to attract a crowd, endeavors later to sell to those whom his vulgar methods have gathered around him some nostrum fallaciously represented as a cure for all the ills that flesh is heir to. Or again on some street corner, where by means of stuffed cats or monkeys displayed in grotesque attitudes, augmented by the harangue of a strident voice, a crowd of the idle and curious is attracted by the medical faker for the same corrupt purposes. The charlatan in such instances well knows that the reputed remedy not only has not the merits claimed for it, but is probably injurious.

Other instances of charlatanism may be cited. In the learned profession of the law there are charlatans who blatantly advertise “advice free” or “divorces obtained for \$10.00,” and so on, offering inducements known to be impossible of fulfillment, which the advertiser has not the slightest intention of trying to fulfill, but designed to attract clients by specious promises, with a view to extorting the largest amount of money from which the unfortunate dupes can be prevailed upon to part. Then there is the dental charlatan who proclaims loudly “painless extractions” or dental work at impossible prices unless the work be of a most unsatisfactory nature.

In all such instances the charlatan abandons all regard for the ethics of his profession in the desire for gain. His charlatanism may be induced either through incompetence, which forces him to extraordinary measures to obtain fees, or the desire to make money more quickly than could be done by acting in a professional manner. Whatever the cause, the charlatanism remains.

The term *profession* should represent not only knowledge and qualification in some branch of science of which the practice naturally justifies a comparatively high rate of remuneration, but

an obligation above all else that the interest of the client shall be the first and highest consideration. In other words the matter of the gain of the professional man must be entirely subservient to the best interest of the client. Such ethical professional conduct is exemplified in the instances, which may frequently be found, of specialists in medical science, whose proven skill makes their services sought by wealthy patients who will pay the highest rates of remuneration; but the same specialists will give their services gratuitously when they know the patients are unable to pay.

In the newest of the professions, that of public accountancy, we can not escape charlatanism any more than can the older professions. Moreover, we have not the absolute practising qualifications protecting the other professions, and the charlatan may affect our profession while being outside of our own ranks. No one is allowed to prescribe medicines unless he be a practitioner qualified under the law; and the legal and other professions are similarly protected; but anyone can style himself a "public accountant" or undertake to do those things which are performed by the certified public accountant.

It is true that in the exercises of many of the functions of a certified public accountant there is little opportunity for misrepresentation. In the matter of auditing, adjusting and stating accounts, while the ability properly to perform such work may be misrepresented the possession of ability or otherwise will soon become apparent, and those deceived will be few.

It is in the later development of the uses of professional accountancy, that is, in installing systems and accounting methods, that there is presented the most prolific source of gain for the charlatan; and it has produced quacks in large quantities, who have fattened and are still fattening on the unwary commercial man. These quacks are mostly—but, it must reluctantly be admitted, are not all—outside the ranks of certified public accountants. While the executive head of a commercial concern may not be susceptible of being "buncoed" through the initial allurements of brass bands and grotesquery, augmented by persuasive but specious discourses, he certainly is very frequently misled by the misrepresentations of a loquacious and clever salesman, whose allurements are equally specious, when it concerns the matter of installing a system of accounts. While in commerce

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it is commonly admitted that the most effective grade of salesmanship is that which has the ability to induce a sale of something unsuitable to or not required by the purchaser, many commercial men fail to recognize this when dealing with their own affairs.

Any professional accountant whose practice is at all extensive cannot fail to marvel at the extraordinary accounting systems he finds in use. Duplications of accounting entries are made so that special forms sold by the "systematizer" may be used. Instead of following the most direct and logical lines, results are collected by circuitous routes in order to convince that there is being used "the very latest method" or that it is "right up to date," or represents new ideas of the introducer; and, whichever it may be, the innovations are represented to be so valuable as to require a very high rate of remuneration for their introduction. All of this is preceded by misrepresentation and persuasive talk by the agent who first seeks to introduce the system.

As an instance, a manufacturing concern having branches in several of the states, has employed the same professional auditor for about ten years for a branch in a western state. The auditor, in addition to verifying the correctness of the company's accounts, gave the benefit of his advice gratuitously from time to time with respect to the best accounting methods to be followed. This auditor in visiting eastern states recently called at the branch houses of these clients in two of the largest cities in the United States. He found that about two years previously the company had installed in the two branches in those cities a system of accounting possessing some very remarkable and highly impracticable features. One was a system by which at the time of writing a cheque, by a carbon copy system the payee's ledger account was also debited. There were some other equally preposterous methods. And for having introduced them in the two eastern branches referred to, the so-called systematizer had been paid about \$5,000.00. It was represented that this system would reduce the necessary office staff by two clerks, but in practice it was found that although the office force had been increased in one city by two clerks, the work was always behind. Then the manager from the western state, first mentioned above, was transferred east and was quick to recognize the inefficiency of the system at the latter point and introduced the methods followed in the western state, which had cost his company nothing, and abol-

ished a system for which \$5,000.00 had been paid. The auditor in the western state during ten years had not been paid in the aggregate as much as \$5,000.00.

This goes to show that, temporarily at least, a charlatan by good salesmanship can make much more money than a professional and qualified accountant. It takes time to arrive at the survival of the fittest; and it costs dearly to entrust work to those who can talk infinitely better than they can perform, instead of confiding it to those holding proper qualifications. The man who installed such a system in the eastern branches referred to must have known very well that he was not giving a fair return for the money he demanded, and, unless entirely inexperienced—in which case he had no right to pose as a systematizer at all—that the system introduced was entirely impracticable—in other words, it was another instance of a quack practitioner and a commercial victim.

The ability to arrange for accounting systems and general methods comes from long acquaintance with and study of the methods of various concerns with which the professional accountant has experience. Nor must originality be forgotten, or we should still be copying charge bills in a book and pasting purchase bills in volumes, have bank pass books with every cheque recorded in handwriting and be following generally the methods of twenty years ago. The machinery of business improves as does all machinery in a purely mechanical sense, but the question as to what is an improvement and what merely a freak idea possessing no benefit is something that the business man would do well not to trust solely to his own judgment but to discuss with those whom professional training and experience render competent to decide.

We shall probably have the charlatan to some extent for all time in all professions. Public education to knowledge of abuses is slow and entails suffering to many. For instance, after all the publicity that has been given to the tricks of "confidence" men and "gold brick" frauds there still are many persons swindled by such means. Men in the business, financial and professional world, the people of enterprise who manage and direct, are the last who should need the advice to beware of being imposed upon, but in the practice of our profession the knowledge is forced upon us that such advice is sometimes sadly required.

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Accountants should be chary of introducing entirely new accounting methods, however perfect theoretically they may appear, until they have been given a practical test. Every failure in this respect, besides doing harm to the introducer, reflects on the whole profession. If one has ideas that appear good there will surely be some client willing to give them a test if the doing so entails but small outlay. Once proven practicable, the installation of improved methods entitles and obtains a high rate of remuneration. Unfortunately, some of our professional brethren introduce and obtain large fees for innovations that at first sight appear improvements in accounting methods, but on trial are found to be impracticable or to have overwhelming disadvantages. This entails two outlays on the part of the client, one for the introduction of the new system and another (almost certainly for the benefit of some other than the introducer) to straighten out matters and obtain something that is suitable. Truly, this means more fees for the profession generally, but it is not conforming with the code of professional ethics and is diametrically opposed to that *esprit de corps* which our professional standing demands.

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EDITORIAL

Annual Convention

The convention of the American Association of Public Accountants held at Boston in the third week of September was in many ways one of the most satisfactory in the history of the association. There was a representative gathering of delegates and other visitors from every part of the country and the feeling of professional pride and fellowship which has been growing steadily during the past few years seemed to have reached a new high level. Several of the topics under discussion concerning association matters pure and simple were such as to lead to a difference of opinion but it is eminently gratifying to record that in spite of divergence of view there was almost without exception a manifest determination to work together for the welfare of the profession whose interest the association serves.

Nothing is more productive of good feeling among the members of any trade or profession than the assembling in convention and the establishment of that close personal touch which without a meeting together is impossible. Clear demonstration of this truth is given by the fact that the men who have attended conventions in the past invariably endeavor to attend the conven-

Editorial

tions following and one sees familiar faces and hears familiar voices at each succeeding anniversary. Meantime the number of delegates and other visitors increases steadily and thus the personal interest of accountants throughout the country is enhanced and encouraged.

The gentlemen of Massachusetts acting upon suggestions from the association introduced into the programme an unusual amount of discussion on technical questions and the success of this departure was shown in the large attendance at every such discussion and the number of participants therein.

It is possible that the meeting in Boston will be the last to be held at the invitation of a state society. The increasing number of delegates and the elaborate nature of the preparations for their reception make it a difficult task for any one society alone to bear the burden of entertainment. At Boston the Massachusetts society had provided a programme which was amazing in its variety and delightful in its fulfillment and if the idea which will be instituted at Washington next September of holding the American Association's convention on the sole responsibility of the association is to be permanent the members will look back with the utmost pleasure upon the last meeting held under the ægis of a state society.

The Income Tax

As predicted many months ago the income tax measure which constitutes a part of the Underwood-Simmons tariff bill has passed both houses of congress and through conference with comparatively few changes of interest from an accounting point of view.

The gratifying feature of the bill is its provision that corporations, associations and insurance companies are at liberty to adopt the fiscal year in preference to the calendar year upon notice of such intention duly filed.

This fact is a distinct victory for the cause of common sense in legislation. For four years the corporations have labored under a serious disability in that they were compelled to make their returns and physical inventories at the end of the calendar

year—a requirement impossible of fulfillment in some cases and possible only at great expense and inconvenience in many others. The arguments adduced by the American Association of Public Accountants in favor of the English system permitting a taxpayer to use the fiscal year, and thereby to lessen the burden of the imposition, impressed themselves strongly upon members of the senate and house of representatives. No opposition to the proposed change was made in either house but owing to the exigencies of national politics and the apparent certainty of an income tax law it was deemed inexpedient to report favorably or otherwise the bill amending the corporation tax law.

In drafting section 2 of the Underwood-Simmons bill the advice of accountants has been heeded in part but it is regretted that the option of a choice of dates was not extended to individual taxpayers engaged in business. This was found impossible to effect at present but we may be sincerely thankful that the relief sought has been accorded to corporate entities.

An interesting point which has escaped notice is an amendment introduced at the last minute in the senate extending the option of date to "manufacturing concerns." Unfortunately the conference of house and senate in its wisdom or otherwise refused to ratify this amendment. It is impossible for anyone not blest with a legislative mind to discern the reason for such refusal and we venture to predict that when the law has been in effect for some time and the advantage of permitting the use of the natural fiscal year in the case of corporations has been seen an amending bill will be introduced, sanctioned probably by the treasury department, providing that individual taxpayers engaged in business shall have the same privilege as that extended to corporations.

The objections which have been raised to the adoption of the fiscal year have been trivial and have scarcely merited discussion. It is difficult to see, therefore, why what is good for the corporation engaged in business should not be equally good for the individual unincorporated.

However, the important fact remains that the principle of the fiscal year has received the sanction of congress and will no doubt receive the approval of the executive, possibly before this magazine is in the hands of the public. A very few years ago it would have been Utopian to believe that expert advice would be

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so well received from a body of men of whose existence the average legislator was ignorant. Now the development of the idea of efficiency in the public service has gained such widespread acceptance that legislators find themselves in a position to recognize the value of the advice of experts. No one in the country has a more intimate interest in the administrative features of an income tax than the public accountants for it is in their hands that the preparation of returns will rest; and the benefit to accountants of the ability to spread the work of the year over the whole year will make for greater accuracy and will entail less of that urgent pressure which is inimical to economy. The treasury department and through it the government also will benefit enormously by the change because the returns compiled will now be made exact and the government will be able to collect a tax upon the actual income. Heretofore the obligation to make physical inventory at December 31st has led to a tendency to estimate.

Take for example a lumber company engaged in business in the northwest having stacks of lumber lying under a great depth of snow at the end of the calendar year. An inventory of this lumber is out of the question and an estimate is the only method by which the report can be made. Assuming that an inventory be so estimated it does not require any great penetration of mind to discover that the estimate will not err on the side more favorable to the government.

The American Association of Public Accountants is to be congratulated upon the victory of efficiency and economy and those members of congress who have been most closely concerned with the drafting and discussion of the income tax bill are to be congratulated in that they have seen the wisdom of common sense.

Canadian Bank Audits

The Minister of Finance of the Dominion of Canada has approved a list of sixty-four auditors chosen by the banks under the terms of the new Canadian bank act.

This approval marks an important epoch in the evolution of accountancy in the Dominion of Canada and sets the seal of

official recognition very much in the same way that the English companies act recognizes the profession, but it goes further along the same road.

Accountants in the United States will view with a good deal of envy the action which the Canadian bank act has made possible. For a long time it has been the aim of members of the profession in this country to secure official recognition such as has now been accorded in the great nation north of us. It may be a matter of years to secure federal official approval in the United States but in all probability the time is not far distant when something of the kind will be accomplished. We doubt whether any government department will go so far as to specify the names of accountants considered competent by the government but it is not unduly optimistic to believe that the time will come when the certified public accountant or when some other officially recognized title will be considered evidence of competency. This would be the better and more desirable consummation and it rests largely with those who are now in practice to bring about that result.

There has been a vast improvement in the recognition accorded to public accountants during the last few years and the general knowledge of the profession and its duties is increasing so rapidly that governmental recognition may be expected within a reasonably short time.

Until that day comes, however, accountants in this country will look with longing eyes upon the official acknowledgment given their confrères in the Canadian Dominion.

Early Days of Accountancy

It is customary to consider the profession of the public accountant as one of very recent date, but apparently there have been public accountants in this country from the late eighteenth century onward.

Evidence of this is offered by an advertisement which appeared in the *New Jersey Journal* of Wednesday, July 8th,

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1795, printed and published by SHEPARD KOLLOCK at Elizabethtown, N. J.

The advertisement reads:

"NOTICE

"A conveyancing office and office of intelligence will be opened by the subscriber on Monday next, in the brick house of William Shute, Esq., formerly occupied by Cortland Van Arsdalen; where writings of every kind will be done on moderate terms; also, farmers' and tradesmen's books posted with accuracy and dispatch, and those who do not understand the method of keeping their books will be shewn the form.

"BENJAMIN THOMSON,

"Elizabethtown, April 21, 1795."

The question arises whether or not MR. BENJAMIN THOMSON was guilty of a breach of ethics.

The American Association of Public Accountants

ANNUAL MEETING, BOSTON, SEPTEMBER, 1913

The twenty-sixth anniversary of the American Association of Public Accountants was celebrated at the annual meeting of the association held in Boston on September 15, 16, 17, and 18, 1913. The attendance at the convention was larger than usual and nearly every state society was represented. In the case of some of the western societies several delegates made the journey to Boston solely for the purpose of attending the convention. Delegates from all the adjacent societies attended in large numbers.

The convention was notable because of the generous entertainment provided by the Certified Public Accountants of Massachusetts, Incorporated, acting in capacity of hosts to the association. The numerous historic and natural points of interest in the neighborhood of Boston rendered the pleasure of the visitors exceptionally great and the setting aside of a considerable portion of time for the consideration of technical questions was a departure from established precedent which met with universal approval. There was no sacrifice of the social features of the convention—merely an increase in the attention devoted to discussion of accountancy.

The convention met in the Copley Plaza Hotel, Boston.

At the regular meeting of trustees held on September 15th the reports of officers, committees and state societies were read and ordered printed in the *Year Book*. The following members were elected:

Colorado Society of Certified Public Accountants

Fellows:

Chester G. Weston, C.P.A.

Emma Manns, C.P.A.

Georgia Society of Certified Public Accountants

Associate:

James Furse, C.P.A.

The American Association of Public Accountants

The Society of Louisiana Certified Public Accountants

Fellow:

H. M. Holliday, C.P.A.

Maryland Association of Certified Public Accountants

Fellows:

Ernest E. Wooden, C.P.A.

Edward Fuller, C.P.A.

Associate:

E. C. Hendrix, C.P.A., subject to evidence of practice

Montana State Society of Public Accountants

Fellow:

William B. Finlay, C.P.A., subject to evidence of practice

Certified Public Accountants of Massachusetts, Inc.

Fellows:

Horace C. Hartshorn, C.P.A.

Daniel B. Lewis, C.P.A.

James P. Francis, C.P.A.

Illinois Society of Certified Public Accountants

Fellows:

Geo. W. Rossetter, C.P.A., subject to consent of Ohio
Society

Joshua Mendenhall, C.P.A., subject to consent of Minne-
sota Society

Minnesota Society of Public Accountants

Fellow:

Edgar C. Salvesen, C.P.A.

Associates:

Hamilton Fleming, C.P.A.

Herbert D. Taylor, C.P.A.

David A. Scott, C.P.A., subject to consent of Missouri
Society

Missouri Society of Certified Public Accountants

Fellows:

Ernest Boyd, C.P.A.

Jeff K. Stone, C.P.A.

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New York State Society of Certified Public Accountants

Fellows:

David E. Boyce, C.P.A.
Frederick G. Colley, C.P.A.
Peter A. Eckes, C.P.A.
Richard FitzGerald, C.P.A.
Raymond Ives, C.P.A.
Robert D. Kesselman, C.P.A.
Walter C. MacNeille, C.P.A.
John T. Madden, C.P.A.
Alexander F. Makay, C.P.A.
Henry E. Mendes, C.P.A.
Charles W. Perry, C.P.A. . .
John H. Schnackenberg, C.P.A.
Justus W. Boies, C.P.A., subject to consent of Oregon
Society
James F. Hughes, C.P.A., subject to consent of New Jer-
sey Society

*The Society of Certified Public Accountants of the State of New
Jersey*

Fellow:

Ira C. Nichols, C.P.A.

Ohio Society of Certified Public Accountants

Fellow:

G. R. Lamb, C.P.A.

Oregon State Society of Public Accountants

Fellows:

Sydney S. Barker, C.P.A.
George Ridout, C.P.A.
W. D. Whitcomb, C.P.A.

Pennsylvania Institute of Certified Public Accountants

Fellows:

James J. Burns, C.P.A.
Ernest Crowther, C.P.A.
Ernest H. Dale, C.P.A.
John P. Herr, C.P.A.

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Robert M. Holtzman, C.P.A.
John Hood, Jr., C.P.A.
Gardner W. Kimball, C.P.A.
Walker E. Linvill, C.P.A.
William R. Main, C.P.A.
Roger K. Nevius, C.P.A.
Albro Wadleigh Sharp, C.P.A.
Frank M. Speakman, C.P.A.
E. O. Wunderlich, C.P.A.
R. J. Bennett, C.P.A.
J. C. Scobie, C.P.A.

California State Society of Certified Public Accountants

Fellows:

Chas. A. Baskerville, C.P.A.
M. H. Bennett, C.P.A.
Clarence S. Black, C.P.A.
W. F. G. Blackie, C.P.A.
Reynold E. Blight, C.P.A.
P. J. Dubbell, C.P.A.
O. T. Johnson, C.P.A.
Arthur M. Loomis, C.P.A.
R. L. McCrea, C.P.A.
William Mackendrick, C.P.A.
William P. Musaus, C.P.A.
W. C. Mushet, C.P.A.
W. J. Palethorpe, C.P.A.
Harry Probert, C.P.A.
E. H. Spencer, C.P.A.
H. Ivor Thomas, C.P.A.
F. F. Hahn, C.P.A.
R. E. Brotherton, C.P.A.
Alphonse Sutter, C.P.A.

Virginia Society of Public Accountants, Inc.

Fellow:

A. T. Henderson, C.P.A.

Associate:

Eugene L. Davis, C.P.A., subject to evidence of practice

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Tennessee Society of Public Accountants

Fellow :

Max C. H. Gaertner, C.P.A.

On Monday afternoon an informal reception to the visitors took place in the hotel and was followed in the evening by a musical recital and dance.

On Tuesday morning at 10 o'clock the meeting was called to order by President Montgomery. The Mayor of Boston, John F. Fitzgerald, delivered an interesting address of welcome and dealt at considerable length with questions of accountancy. A reply to the address was made by Mr. E. L. Suffern, the president of the New York State Society of Certified Public Accountants.

Upon receipt of the report of the committee on credentials the convention proceeded to business. The report of the committee on state legislation was discussed and suggestions for uniformity of requirement were considered. A special committee to deal with the subject was appointed by the chair.

At 1 o'clock visitors were entertained at luncheon by the Massachusetts Society at the Copley Plaza and an address was delivered by J. Randolph Coolidge, first vice-president of the Chamber of Commerce of Boston.

At the afternoon session of the convention the report of the committee on constitution and by-laws was considered and certain amendments were adopted. The more important of these were the increase of dues of society members and associates at large and a clause providing that members or state societies five months in arrears of dues or other obligations to the association should automatically cease to be members.

The dues as ratified by the convention are as follows :

Fellows at large	\$10.00
Associates at large	7.50
Society fellows	10.00
Society associates	5.00

In the evening the delegates listened to an address by Professor Edwin F. Gay, Dean of the Harvard graduate school of business administration on the subject *Uniform Accounting and*

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the Work of the Harvard Bureau of Business Research. A discussion of the paper was led by Mr. J. Edward Masters, who was followed by several other delegates.

A special entertainment for the ladies of the convention was provided by the ladies of the Massachusetts society.

At the meeting of the association on Wednesday morning the following officers were unanimously elected:

Robert H. Montgomery, President.

Carl H. Nau, Treasurer.

James Whitaker Fernley, John B. Geijsbeek, J. S. M. Goodloe, Trustees for three years.

W. McK. Evans, Virginia, Charles O. Hall, Maryland, Auditors.

Invitations were received from the cities of Buffalo and St. Louis to hold the 1914 convention of the association in those cities. A report approved by the board of trustees in favor of holding the convention in Washington, D. C. was discussed and the proposition was approved by the convention.

At noon the delegates left on a special steamer for a tour of the harbor and landed at Pemberton where a shore dinner was provided, after which a baseball game between the "Grass-widowers" and the "Benedictines" engaged the rapt attention of everyone present.

Upon return to Boston in the evening Mr. F. R. Carnegie Steele read a paper *Development of Systems of Control* which was discussed under the leadership of Mr. George L. Bishop. Joseph E. Davies, Commissioner of Corporations, delivered an important and instructive address on *The Relationship between Government and Industry*.

Reply was made by Mr. Harvey S. Chase.

On Thursday morning Mr. Francis P. Sears, the chairman of the executive committee of the National Shawmut Bank of Boston delivered an address on *The Mission of the Public Accountant*. This was discussed by Mr. Amos D. Albee and others.

At 1 o'clock the meeting adjourned and the new board of trustees assembled.

At this meeting of trustees A. P. Richardson was re-elected secretary and the following were elected to the executive committee:

H. S. Corwin, W. Sanders Davies, E. W. Sells, E. L. Suffern, W. F. Weiss.

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In the afternoon the delegates and other visitors were taken in automobiles for a tour of Cambridge, Lexington and other points of interest in the vicinity of Boston.

The annual banquet was held at the Copley Plaza on Thursday evening under the chairmanship of Robert H. Montgomery, president of the association. The speakers were: Messrs. Augustus L. Thorndike, bank commissioner of Massachusetts; John H. Fahey, chairman executive committee Chamber of Commerce of the United States; and John B. Geijsbeek, chairman of the committee on education of The American Association of Public Accountants.

On Friday the weather which had been delightful throughout the earlier part of the week changed completely and the golf tournament which had been scheduled to take place at the Bracburn Club was unavoidably cancelled.

Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.C.S., C.P.A.

PROBLEM NO. 22 (DEMONSTRATION)

A trial balance of the books of Chauncey, Bennett and Cooper, a limited copartnership, on June 3, 1912, the date on which A. M. Dawson, was appointed receiver, was as follows:

<i>Debits</i>		<i>Credits</i>	
Equipment	\$ 80,972.50	Wages accrued	\$ 12,862.15
Building material	18,435.73	Salaries accrued	1,243.74
Invested in contracts....	125,942.36	Due supply houses	198,891.30
Cash	5,875.80	Notes payable	85,000.00
Due from customers	117,226.15	Int. accrued on notes pay- able	126.79
Due from sub-contractors	1,520.37	Reserve depreciation equipment	35,348.27
Notes receivable	25,000.00	Capital:	
Accrued interest on notes receivable	136.27	J. D. Chauncey	23,256.64
Rent paid in advance....	1,000.00	P. H. Bennett	22,177.25
Cost of contracts.....	187,536.24	J. W. Cooper (special)	25,000.00
Salaries—office	20,946.32	Income from contracts..	190,236.42
Expenses—office	8,314.69		
Interest	1,236.13		
Total	\$594,142.56	Total	\$594,142.56

The estimates of values made by the receiver are as follows: equipment if sold at forced sale will bring \$15,000; building material, \$15,275; notes receivable, \$25,000, and interest; due from subcontractors, \$1,200. The account "due from customers" contains \$50,000, drawn out by Chauncey and Bennett. Liens against work in progress amount to \$3,000. Estimated cost of completing contracts which will yield \$150,000 is \$9,057.64. (Labor, \$7,259; material, \$1,798.64.)

After consideration it was decided to allow the receiver to continue the business. Certain of the creditors combined in advancing \$10,000 and extending credit necessary to enable the receiver to purchase additional materials. Chauncey and Bennett, under pressure, succeeded in raising \$30,000, which they paid in. The receiver's transactions were: cash paid to creditors, \$113,452.17; to workmen, \$25,875.32; salaries, \$3,500; charges to

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cost of contracts, for material, \$12,781.43; for labor, \$15,653.74; charges for salaries, \$3,468.33; office expenses, \$1,239.73; contracts completed, charged at \$175,000, cost \$149,343.27; interest accrued on notes payable, \$135.75; purchases of material on account, \$8,793.25; collected from customers, \$187,525.15; paid notes and interest, \$20,127.35; expenses of receivership, \$2,590.75.

On January 1, 1913, the receiver restored the business to the partners, after collecting 1 per cent on disbursements as his commission. J. S. Cooper, the special partner, receives one-fourth of the profits and losses.

Prepare a statement of affairs and deficiency account.

SOLUTION TO PROBLEM NO. 22

While this problem contains the necessary information for both the demonstration and practice problems only so much as concerns the former will be considered here. For this purpose the problem need only be read to the end of the paragraph following the trial balance excepting of course the last line which calls for a statement of affairs and a deficiency account.

The problem differs somewhat from the previous one of this type in that a trial balance rather than a balance sheet is given. The trial balance includes certain nominal accounts which should be either closed out or ignored in estimating the realization and liquidation. In the latter event, however, the deficiency account will show the profit or loss on operations. As a practical matter the nominal accounts would always be closed out on the books and the balance sheet resulting would become the basis for the statement of affairs. In solving problems of this type where the nominal accounts appear, the technique is somewhat simplified by allowing them to stand. It is, of course, true that the deficiency account may be begun with the adjusted capital, ignoring the profit or loss on operations, but as this detracts somewhat from the comprehensiveness or, perhaps, rather the inclusion of the operating results of the period prior to receivership adds to the comprehensiveness it is thought such results may well be included. To bring out this point the following may serve:

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Capital per trial balance	\$70,433.89
Income from contracts	\$190,236.42
Cost of contracts	\$187,536.24
Salaries—office	20,946.32
Expenses—office	8,314.69
Interest	1,236.13 218,033.38
Loss on operations	27,796.96
Capital, June 3, 1912, after closing	\$42,636.93

If the nominal accounts were to be closed out the deficiency account would begin with the amount \$42,636.93 and the loss from operation would be ignored. If they are not closed out the deficiency account will begin with \$70,433.89, and the loss shown in the account either broad (debits and credits) or net, as choice may dictate.

The question of the capital adjustment raises an interesting question concerning the account of the special partner. According to the terms of the copartnership contract, J. W. Cooper, the special partner, is to receive one-fourth of the profits, or be charged with one-fourth of the losses. In accordance with such agreement he would be charged with one-fourth of \$27,796.96 or \$6,949.24. The law concerning limited or special copartnership requires that the capital of special partners must be maintained at least in the amount contributed and while they may receive interest and profit on their investments such payments may not impair their capital. The question concerning the J. W. Cooper account is the effect of the loss above mentioned. It must be conceded, it would seem, that there is a holding out to creditors that Cooper has \$25,000 invested in the business. If the loss is charged against him, obviously, he will have only \$18,050.76. The inference to be drawn from the law therefore is that the general partners could hold him for the loss and that the amount due from him might reasonably be considered as an asset available for the liquidation of liabilities.

As the first step in the solution of the problem a working sheet should be prepared, taking as a basis the trial balance and putting against it the estimated realization. The working sheet is desirable in order that the figures may be proven and a clear idea of the situation obtained before beginning work on the statements.

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WORKING SHEET FOR STATEMENT OF AFFAIRS AND DEFICIENCY ACCOUNT

<i>Debits</i>	Trial balance	Estimated real- ization and liquidation	Increases	Decreases
Equipment	\$ 80,972.50	\$ 15,000.00		\$ 65,972.50
Building material	18,435.73	15,275.00		3,160.73
Invested in contracts	125,942.36	150,000.00	\$ 24,057.64	
Cash	5,875.80	5,875.80		
Due from customers	117,226.15	67,226.15		50,000.00
Due from subcontractors ...	1,520.37	1,200.00		320.37
Notes receivable	25,000.00	25,000.00		
Accrued interest on notes rec.	136.27	136.27		
Rent paid in advance	1,000.00	1,000.00		
Cost of contracts	187,536.24			187,536.24
Salaries—office	20,946.32			20,946.32
Expenses—office	8,314.69			8,314.69
Interest	1,236.13			1,236.13
Total debits	\$594,142.56			
Due from special partner ...		6,949.24	6,949.24	
Total estimated assets...		\$287,662.46		
Deficit		19,519.16		
Total		\$307,181.62		
<i>Credits</i>				
Wages accrued	\$ 12,862.15	\$ 12,862.15		
Salaries accrued	1,243.74	1,243.74		
Due supply houses	198,891.30	198,891.30		
Notes payable	85,000.00	85,000.00		
Interest accrued on notes payable	126.79	126.79		
Reserve for depn, equipment	35,348.27		35,348.27	
Capital:				
J. D. Chauncey	23,256.64		23,256.64	
P. H. Bennett	22,177.25		22,177.25	
J. W. Cooper (special) ...	25,000.00		25,000.00	
Income from contracts	190,236.42		190,236.42	
Total credits	\$594,142.56			
Estimated cost of completing contracts		9,057.64		9,057.64
Total estimated liabilities		\$307,181.62		
			\$327,025.46	\$346,544.62
				\$ 19,519.16

In looking at the above it will be seen that the net decrease, shown at the bottom on the right, amounts to \$19,519.16, the same as the deficit. A glance at the working sheet will also show

that all the information necessary to the preparation of the statements, except preferences and offsets is clearly set forth. The first two columns give the data for the statement of affairs, while the third and fourth provide that for the deficiency account. It may be difficult to understand why the reserve, the capital accounts and the income from sales are shown as increases when obviously this mechanical procedure is the reverse of that followed above in the case of the assets. Equipment, for example, appears in the trial balance as \$80,972.50, while in the estimated realization and liquidation column it appears as \$15,000, hence the difference appears in the decrease column. The reserve for depreciation appears in the trial balance as \$35,348.27, while it is missing from the estimated realization and liquidation column. Apparently following the line of reasoning with regard to equipment it has decreased; still the difference is shown as an increase. It is probable that this matter can be cleared up if increases and decreases are considered with regard to their relation to capital. As a result of the above changes has capital increased or decreased? Concerning equipment surely it has decreased. If the reserve is released capital has increased. Income from sales increases capital. If the deficit is to be ascertained then capital, which is available for the liquidation of the liabilities, must be brought into play and treated like any increase.

The item of rent paid in advance may have been treated somewhat arbitrarily and the matter may be open to discussion. If the rent has been paid in advance, of necessity there must be a lease covering a period extending into the future. Since in the present instance the receiver is to continue the business it is to be presumed that he will be able to work out the amount paid in advance, which probably does not cover any extended period. By virtue of this fact creditors will receive more than they would if the payment had not been made and he were obliged to use other funds for this purpose. It is, therefore, worth as an asset \$1,000. Were the business to be wound up and the use of the property discontinued by the receiver he would doubtless be able to realize on the prepayment either by selling the lease or subletting. It is true that the full amount might be reduced to the extent of commission paid to real estate brokers, but since such a reduction is a matter of speculation,

it seems, in the absence of any specific information on the point to take it at its face value.

Nothing is said in the problem concerning the division of profits or losses between the two general partners. The general rule in copartnership problems, as well as in copartnership contracts, where the manner of division is not specified, is that the profits and losses shall be divided equally in accordance with the number of partners. If this rule is to be applied here, after deducting one-fourth of the total which is applicable to the special partner the amount remaining will be equally divided between the other two partners. Consequently it is to be presumed that the drawings of the partners which were included in the amount due from customers are to be charged against them in equal amounts and that subsequently the funds which they raised under pressure were credited to them in the same way.

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RECEIVER FOR CHAUNCEY, BENNETT & COOPER

STATEMENT OF AFFAIRS AS OF JUNE 3, 1912

<i>Assets and deficit</i>		<i>Liabilities</i>		
	Nominal value	Estimated to realize		Expected to rank
Cash		\$ 5,875.80	Preferred claims (deducted per contra)	
Accounts rec.—customers.....	\$117,226.15	\$ 5,875.80	wages	\$20,121.15
Less—withdrawals by part-ners	50,000.00	67,226.15	Creditors:	
			Fully secured (liens—deducted per contra)	3,000.00
Due from subcontractors		1,520.37	Partly secured	none
Building material		18,435.73	Unsecured	\$284,060.47
Notes rec. and interest		25,136.27		
Rent paid in advance		1,000.00		
Due from J. W. Cooper		6,949.24		
Invested in contracts	\$125,942.36			
Add—estimated cost to complete	9,057.64			
	<u>\$135,000.00</u>			
Deduct—lien (per contra)	3,000.00	132,000.00		
Equipment	\$ 80,972.50			
Less—reserve for depn. ..	35,248.27	45,724.23		
	<u>Total assets</u>	<u>\$284,662.46</u>		
	Deduct—preferred claims (per contra)	20,121.15		
	<u>Net assets—subject to commissions and expenses, available for unsecured creditors, being 93 plus per cent of their claims</u>	<u>\$264,541.31</u>		
Deficit		19,519.16		
	<u>Total assets and deficit</u>	<u>\$284,060.47</u>		
			Total liabilities to unsecured creditors.....	<u>\$284,060.47</u>

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RECEIVER FOR CHAUNCEY, BENNETT & COOPER

DEFICIENCY ACCOUNT AS OF JUNE 3, 1912

Adjustment of partners accounts	\$50,000.00	Capital	\$70,433.89
Loss on operations	27,796.96	Balance	7,363.07
	<u>\$77,796.96</u>		
Balance	\$ 7,363.07	Estimated profit on con- tract	\$15,000.00
Estimated losses on real- ization:		Deficit	26,468.40
Subcontractors	320.37		<u>\$41,468.40</u>
Building material	3,160.73		
Equipment	30,624.23		
	<u>\$41,468.40</u>		

In working problem 22-A, the nominal accounts should be closed out before taking up the transactions for the receiver since it is the intention to show through the statement of income and profit and loss the efficiency of the receiver. To merge with his operations those corresponding to the period before he took charge would be eminently unfair. The rent paid in advance should be treated as having expired during the period of the receivership.

PROBLEM NO. 22-A (PRACTICE)

From the text of problem No. 22 prepare:

- Balance sheet, December 31, 1912.
- Statement of income and profit and loss for the period ended on said date.

The Dominion Association of Chartered Accountants

The eleventh annual meeting of the Dominion Association of Chartered Accountants was held in Winnipeg, Manitoba, on the 2d, 3d and 4th September. This was the first time that the annual meeting had been held west of Toronto, consequently the large attendance of members from every part of Canada was exceedingly gratifying to the members of the Manitoba Institute of Chartered Accountants under whose auspices the meeting was held and who acted as hosts at the numerous social functions provided for the entertainment of the visiting members and their wives.

Organized accountancy in Canada dates back some thirty years, when in July, 1880, the Association of Accountants in Montreal was brought into existence by the charter of the legislature of Quebec, the Institute of Chartered Accountants in England and Wales having been granted an imperial charter only two months before.

The Institute of Chartered Accountants of Ontario, which had existed as an unincorporated society since 1879, obtained incorporation in 1883, followed by the Manitoba Institute in 1886 and Nova Scotia in 1900. For the first twenty years, therefore, in the history of organized accountancy in Canada these institutes were purely provincial or local in their character and it is not known that any effort at cooperation between these four societies was ever attempted prior to 1900.

In 1901 the Dominion Association of Chartered Accountants was incorporated by the authority of the Canadian parliament after a somewhat strenuous contest in which its promoters and all the existing societies took a more or less active part.

The immediate result of the formation of the new association was to set up a new and for the time being not necessarily harmonious authority for professional standards of competency, practice and conduct in the provinces where the existing institutes had for many years been carrying on their work. The representatives of each institute contended for the point of view that they thought to be right, and out of a large store of experience and much controversy the organization as it exists today signed in 1910 an enduring treaty of peace and is now composed of all the provincial institutes and societies in whose interests its energy and influence are wholly exerted.

Subsequent to the incorporation of the Nova Scotia Institute charters have been issued to societies in British Columbia, Saskatchewan and Alberta, all of which are in a flourishing condition.

At the opening meeting on Tuesday the 2d September, which was held in the Royal Alexandra hotel, the Mayor (Mr. T. R. Deacon) extended a hearty welcome to the members and their wives on behalf of the city.

The president of the association (Mr. W. A. Henderson) in addressing the convention reviewed the work done during the year, dealing particu-

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larly with legislative matters. He reported that the membership of the association had increased from 255 in 1910 to 375 at present.

Several interesting papers were read and were followed by discussion.

It was decided to hold the 1914 convention at Halifax.

The banquet, smoking concert and other social features of the convention were all that could be desired and members and visitors expressed hearty appreciation of the hospitality of the Manitoba Institute of Chartered Accountants.

Nevada C. P. A. Law

AN ACT to create a state board of accountancy and prescribe its powers and duties; to provide for the examination of and issuance of certificates to applicants, with the designation of certified public accountants; to provide for examinations of state, county and city accounts and to provide the grade of penalty for violations of the provisions hereof.

Approved Mar. 24, 1913.

The People of the State of Nevada, represented in Senate and Assembly, do enact as follows:

Section 1. Within thirty days after the approval of this Act the Governor shall appoint three persons, at least two of whom shall be competent and skilled accountants who shall have been in practice as such in this state for not less than one year, to constitute and serve as a State Board of Accountancy. The members of such board shall, within thirty days after their appointment, take and subscribe to the oath of office as prescribed by the laws of Nevada, and file the same with the Secretary of State. They shall hold office for three years, and until their successors are appointed and qualified, save and except that one of the members of the board first to be appointed under this Act shall hold office for one year; one for two years, and one for three years. Any vacancies that may occur from any cause shall be filled by the Governor for the unexpired term; *provided*, that all appointments made after the first year must be made from the roll of certificates issued and on file in the office of the Secretary of State.

Sec. 2. The State Board of Accountancy shall have its principal office in the City of Reno, and its powers and duties shall be as follows:

1. To formulate rules for the government of the board and for the examination of and granting of certificates of qualification to persons applying therefor.

2. To hold written examinations of applicants for such certificates, at least semiannually, at such places as circumstances and applications may warrant.

3. To grant certificates of qualification to such applicants as may,

The Dominion Association of Chartered Accountants

upon examination, be found qualified in theory of accounts, practical accounting, auditing, and commercial law to practise as certified public accountants.

4. To charge and collect from all applicants such fee, not exceeding twenty-five dollars, as may be necessary to meet the expenses of examination, issuance of certificates and conducting its office; *provided*, that all such expenses, including not exceeding ten dollars per day for each member while attending the sessions of the board or conducting examinations, must be paid from the current receipts, and no portion thereof shall ever be paid from the state treasury.

5. To require the annual renewal of all such certificates, and to collect therefor a renewal fee of not exceeding ten dollars.

6. To revoke for cause any such certificate, after written notice to the holder, and a hearing being had thereon.

7. To report annually to the Secretary of State, on or before the 1st day of December, all such certificates issued or renewed, together with a detailed statement of receipts and disbursements; *provided*, that any balance remaining in excess of the expenses incurred, may be retained by the board and used in defraying the future expenses thereof.

8. The board may in its discretion, under regulations provided by its rules, waive the examination of applicants possessing the qualifications mentioned in section 3, who shall have been for more than one year prior to the passage of this Act practising in this state as a public accountant on their own account, who shall in writing apply for such certificates within six months.

Sec. 3. Any citizen of the United States, or any person who has duly declared his intention of becoming such citizen, residing and doing business in this state, being over the age of twenty-one years and of good moral character, may apply to the State Board of Accountancy for examination under its rules, and for the issuance to him of a certificate of qualification to practise as a certified public accountant, and upon the issuance and receipt of such certificate, and during the period of its existence, or of any renewal thereof, he shall be styled and known as a certified public accountant or expert of accounts, and no other person shall be permitted to assume and use such title or to use any words, letters or figures to indicate that the person using the same is a certified public accountant.

Sec. 4. When required by law, or otherwise, that examination be made of the books, records or accounts of any officer, department or public institution of the state of Nevada, or of any city or county therein, such examination shall be made by a certified public accountant duly qualified as such, under the provisions of this act.

Sec. 5. Any violation of the provisions of this act shall be deemed as a misdemeanor.

Maine C. P. A. Law

AN ACT to regulate the practice of professional public accounting and establish the Maine Board of Accountancy.

Section 1. That there be and hereby is created and established a board which shall be known as the Maine Board of Accountancy, vested with power to have and use a common seal and to make such rules, by-laws and regulations, not inconsistent with law, as they shall deem necessary to improve and promote the science and art of accounting, and to carry out the purposes and enforce the provisions of this act. Said board shall promote the standard of general education; the standard of special education in the science and art of accounting; the standard of moral character and general public experience as prescribed in this act in all examinations conducted hereunder.

Sec. 2. Within thirty days after this act takes effect the governor, with the advice and consent of the council, shall appoint three persons, who are citizens and residents of the State of Maine, to constitute and serve as the Maine Board of Accountancy. Two of such persons shall be skilled in the art of accounting who have previously been actively engaged in the profession of a public accountant, and the other shall be a practising attorney in good standing in the courts of the State of Maine.

Sec. 3. The first three members appointed to the board shall serve for one, two and three years terms respectively, each to be designated by the governor, and thereafter all members shall be appointed for a term of three years or to fill out an unexpired term of a previous member, and excepting the attorney member, shall be holders of certificates issued under the provisions of this act. They shall take and subscribe to the oath required by law to qualify them to discharge their duties.

Sec. 4. A majority of the board shall constitute a quorum for the transaction of its business. They shall elect a chairman and secretary who shall hold their offices for the term of one year or until their successors are elected. The secretary shall give bond to the treasurer of the State of Maine in such sum as the board may determine for the faithful accounting of all moneys or property coming into his possession, and he shall keep proper records of the doings of the board, and of his receipts and expenditures, and all certificates issued and applications received by the board. He shall pay over to the treasurer of State quarterly on the last secular days of March, June, September and December, all fees collected by him during the preceding three months, and make such report thereof as the State auditor may require.

Sec. 5. The moneys paid into the State treasury under the provisions of this act shall be applied to the payment of the compensation and expenses of the members and of the expenses of the board, and so much thereof as may be necessary is hereby appropriated for that purpose. All

Maine C. P. A. Law

bills for services and expenses of the board shall be submitted to the State auditor and upon approval be certified as required by law, and be paid from the moneys held in the State treasury as aforesaid; provided, however, that at no time shall any bills for services and expenses be paid out of the State treasury in excess of the amount paid into the same under the provisions of this act.

Sec. 6. The members of the board shall receive as compensation for their services five dollars per day for the time actually spent and such expenses as are incidental and necessary to carry out the provisions of this act.

Sec. 7. Any person who shall have received from the Maine Board of Accountancy a certificate of his qualifications to practise as a public accountant, as hereinafter provided, shall be styled and known as a certified public accountant, and no other persons shall assume such title or use the abbreviation C. P. A. or any other words, letters or figures to indicate that the person using the same is such certified public accountant.

Sec. 8. At such times as the board may fix upon, it shall hold meetings for the examination of applicants for certificates and shall give notice thereof by publication in a daily newspaper in each of the cities of Portland, Lewiston, Bangor and Augusta, stating the time and place of such meetings, not less than twenty days prior to the date thereof. At such meetings the board shall conduct examinations of applicants who have been residents of the State of Maine at least one year prior thereto, and of certified public accountants of any other state or foreign government which extends similar privileges to certified public accountants of this state, and who have paid the required fee, and to those who have shown the required proficiency in the theory of accounts, practical accounting, auditing, business systems and commercial law, and such other subjects as it deems necessary, and whom they believe to be of such character and fitness as to qualify them to act as public accountants, they shall issue a certificate over the signatures of the board and under its seal that the applicant is entitled to practise as a certified public accountant in accordance with the provisions of this act.

Sec. 9. The board may, in its discretion, waive the examination and the payment of fees and may issue a certificate for certified public accountant to any person possessing the qualifications mentioned in the preceding section who is the holder of a certified public accountant's certificate issued under the laws of another state or foreign government which extends similar privileges to certified public accountants of this state, provided the requirements in the state or foreign government which has granted it to the applicant are, in the opinion of the Maine Board of Accountancy equivalent to those herein provided.

Sec. 10. Each applicant for examination shall pay to the secretary of the board a fee of twenty-five dollars at the time of filing his application and no other fees or costs shall be required to be paid by him.

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If the applicant fails to pass the examination the fee shall not be returned to him, but he shall be entitled to take another examination after one year at any advertised meeting at which there are to be other applicants for examination. The fee shall be required to be paid by every person to whom a certificate for a certified public accountant is issued by the Maine Board of Accountancy, except that where reciprocal certificates are issued the fees required shall be not less than, nor more than the fees charged to certified public accountants of this state for similar privileges.

Sec. 11. The Maine Board of Accountancy may revoke any certificate issued under the provisions of this act upon proof of bad moral character, dishonesty, conviction of crime, incompetency or unprofessional conduct; provided, however, a written notice shall have been mailed to the holder of such certificate at least twenty days before any hearing thereon stating the cause for such contemplated action and appointing a time and place for a hearing thereon by the Maine Board of Accountancy. Upon the revocation of any certificate it shall be surrendered to the board by the holder.

Sec. 12. Upon the granting of any certificate for a certified public accountant by the board its secretary shall immediately file in the office of the secretary of state a certificate showing the name, residence and post office address, of the person to whom it is issued together with the date of the certificate and such other information as the board may deem advisable, such certificate to be open to all persons at all reasonable times for all proper purposes.

Sec. 13. Any person who shall advertise or issue any sign, card or other indication designating himself as a certified public accountant, or who shall assume the title of a certified public accountant, or use the abbreviation C. P. A., or any other words, letters or figures to represent that he is a certified public accountant, or shall practise as such without having received a certificate in accordance with the provisions of this act, or who shall issue any such sign, card or other indication or assume such title or abbreviation after any certificate authorizing such use by him has been revoked or continue to practise as a certified public accountant shall upon conviction be punished by a fine not exceeding five hundred dollars.

Sec. 14. The board shall annually make a report to the governor and council showing its receipts and disbursements in detail, the names of persons to whom certificates have been issued, and the names of persons whose certificates have been revoked with the reasons therefor, during the fiscal year ending June 30th.—(Approved March 31, 1913.)

Correspondence

Interest and Rent

Editor, The Journal of Accountancy:

Sir: I have been studying the problem on pages 287, 288, and 289 of April, 1913, issue of *THE JOURNAL*. This is a very interesting problem, but there are a few points in the solution which are not quite clear to me. The fourth column, (interest) on page 289, totals up to \$4,750, but it seems to me that it should total to \$5,000. There is a difference here of \$250. The last column, (yearly rent) totals up to \$449,750, which amount is also \$250 short of the \$450,000, stated in the lease.

I assume that it is the purpose to show, at the end of the ten years, that the full amount stated in the lease (\$450,000) has been paid. But the plan given shows, or at least makes it appear that there is yet \$250 due to the lessor.

It seems to me that the interest should be figured on the full \$25,000, before the \$1,250 is deducted, and the interest similarly figured at the end of each period. This, it seems to me, would be correct, because at the end of the first six months, the company has been deprived of the use of \$25,000 not \$23,750. At the end of the six months, the company applies \$1,250 of the \$25,000 on its rent, but not until the end of the period. Consequently, it is entitled to interest on the full amount for the period. If this is done, the fourth column in the book will total to \$5,250, and the rent column \$450,250. Both of these columns would then be \$250 in excess of the amounts which it is desired to show. This difference can then be spread over the twenty periods, by charging income \$12.50, and crediting rent account the same amount, at the end of each period. Since the interest accumulation (\$5,250) is \$250 in excess of the \$5,000, which was assumed in the lease to be the amount of interest, and since rent has been charged and income credited, would it not be correct enough, for all practical purposes, to reverse the process, and take one-twentieth of this amount, or \$12.50, away from income each period?

The lease does not state if the monthly payments are to be made in advance or not. But since the \$25,000 payment was made in advance, I assume that all subsequent payments are not due until the month has expired. While the difference involved is small, I would, nevertheless, like to have your opinion as to the merits of the above suggestion.

I enclose an outline of the altered figures.

Yours very truly,

GEO. T. WATTS.

Billings, Montana.

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<i>Half Year</i>	<i>Int. @ 4%</i>	<i>Yearly Rent</i>	<i>Corrected Int.</i>	<i>Corrected Yearly Rent</i>
1	\$500.00	\$22,750.00	\$487.50	\$22,737.50
2	475.00	22,725.00	462.50	22,712.50
3	450.00	22,700.00	437.50	22,687.50
4	425.00	22,675.00	412.50	22,662.50
5	400.00	22,650.00	387.50	22,637.50
6	375.00	22,625.00	362.50	22,612.50
7	350.00	22,600.00	337.50	22,587.50
8	325.00	22,575.00	312.50	22,562.50
9	300.00	22,550.00	287.50	22,537.50
10	275.00	22,525.00	262.50	22,512.50
11	250.00	22,500.00	237.50	22,487.50
12	225.00	22,475.00	212.50	22,462.50
13	200.00	22,450.00	187.50	22,437.50
14	175.00	22,425.00	162.50	22,412.50
15	150.00	22,400.00	137.50	22,387.50
16	125.00	22,375.00	112.50	22,362.50
17	100.00	22,350.00	87.50	22,337.50
18	75.00	22,325.00	62.50	22,312.50
19	50.00	22,300.00	37.50	22,287.50
20	25.00	22,275.00	12.50	22,262.50
<hr/>		<hr/>	<hr/>	<hr/>
	\$5,250.00	\$450,250.00	\$5,000.00	\$450,000.00
<hr/>				
	Excess \$250.00	Excess \$250.00.		

Editor, The Journal of Accountancy:

Sir: The letter from MR. WATTS referring to my solution of question 16 of the last Pennsylvania C. P. A. examination is interesting. His exceptions to my statement of the problem are well taken, and in an actual case I would have little or no objections to the adoption of his plan of distribution. This comment however will be of no benefit to JOURNAL readers without reference to the problem and solution.

I showed two ways of handling the entries. In my second solution the consideration of compound interest was omitted, also the \$5,000 reduced from the total cost of the lease. Of the prepaid rent of \$25,000, I assumed that the first six months' portion should be charged monthly to this period. This portion of the \$25,000 is \$1,250 (1/20 of \$25,000) and can hardly be looked upon as a prepayment and therefore not entitled to interest as an investment. The amount deferred for application to later periods is looked upon as an investment and therefore an amount on which interest should be taken. Interest at 4% on \$23,750 for six months is \$475, the amount to be charged up against the first period. This period now includes cash \$21,000, 1/20 of \$25,000 or \$1,250, and \$475 interest on the prepayment of \$23,750.

This is not an ideal solution, but one that would suit the case very nicely without serious discrepancies. The one suggested by MR. WATTS would undoubtedly serve the purpose equally well.

Faithfully yours,

R. J. BENNETT.

Philadelphia, Pa.

Correspondence

That the Stockholder May Comprehend

Editor, The Journal of Accountancy:

Sir: I wish to express my thanks to THE JOURNAL for the review of my *Principles of Double-Entry Bookkeeping* which appeared in the August number. The article is in the main unfavorable, but it is written in a not unfriendly spirit and is evidently an honest expression of opinion. I believe that a more careful study of the book would convince the reviewer that it does really present a new and complete explanation of double-entry bookkeeping, but I do not care to enter into any argument on that question now, being content to leave it to the judgment of the future.

But while not wishing to raise any discussion on matters of theory, I do wish to ask the aid of THE JOURNAL in trying to bring about a change in accounting practice which would redound to the very great advantage of the whole profession.

The only point of contact between the accountant and the public is in the reports which he makes; and unfortunately he always makes his reports in a form which the people in general instinctively recognize as irrational. The form of statement showing assets and liabilities equal makes the language of accounting a jumble of self-contradiction. It makes a reserve liability, which is a contradiction in terms; it makes a deficit an asset, which is a contradiction in terms; it makes surplus a liability, which is a contradiction in terms.

Now it is the easiest thing in the world to make the statement in proper form, showing assets, liabilities and net capital separately, if the bookkeeper will simply bear in mind the fact that the books of a corporation should be kept from the standpoint of the stockholders, and that he should use the words "asset" and "liability" in the same way that he uses the words "loss" and "gain." No corporation bookkeeper ever thinks of counting an item as loss unless it represents loss from the standpoint of the stockholders, nor of counting an item as gain unless it represents gain from the standpoint of the stockholders. In like manner, he should never count an item as asset unless it represents asset from the standpoint of the stockholders, nor as liability unless it represents liability from the standpoint of the stockholders.

Therefore, instead of making his statement by the indiscriminate entry of all debit balances on the one side and all credit balances on the other, the bookkeeper should enter on the left-hand side all items which represent asset from the standpoint of the stockholders, and the total, and on the right-hand side all items which represent liability from the standpoint of the stockholders, and the total, and also the balance, which represents the net capital. He should carry the balance down on the left-hand side and then enter on the right-hand side all the remaining items, those which compose the net capital, giving the totals to show that the two sides are equal.

That is all there is to it, and it is so simple that any person of ordinary

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intelligence can do it. Yet simple as it is, if that change is ever brought about it will do more to raise the art of accounting to its proper place in the estimation of the public than anything that has been done since double-entry bookkeeping was invented.

Knowing that *THE JOURNAL* is deeply interested in everything which tends to the advancement of the accounting profession, I confidently appeal to it to exert its influence toward effecting a change which will free that profession from the reproach of using irrational language.

Yours very truly,

C. M. VAN CLEVE,

Brooklyn, N. Y., Aug., 19, 1913.

Oregon Society of Public Accountants

At the annual meeting of the Oregon State Society of Public Accountants the following officers were elected for the ensuing year:

President, E. H. Collis; vice-president, Alex C. Rae; secretary and treasurer, H. A. Moser; directors, Arthur Berridge, W. R. Mackenzie, John Y. Richardson and William Whitfield.

Announcements

William F. Morris, C.P.A., B. DeF. Baird and Charles U. Martin announce the formation of a partnership for the practice of accountancy under the firm name of Morris, Baird and Martin, with offices in the Commonwealth Building, Philadelphia, Pa.

Pace & Pace announce that Frederick M. Schaeberle has been admitted to the partnership as of September 1st, 1913.

P. A. Eckes, C.P.A., Richard Fitz-Gerald, C.P.A. and W. N. Dean, C.P.A., formerly of the firm of Perley Morse & Co. New York City, have opened an office under the name of Eckes, Fitz-Gerald & Dean at No. 141 Broadway, New York City, and a branch office in the Wilson Building, Dallas, Texas.

J. Lee Nicholson, C.P.A., has been appointed instructor in cost accounting at Columbia University in the City of New York.

William B. Johnson, C.P.A., has removed his office from 277 Broadway to 43 Cedar Street, New York.

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No. 5

New York State Franchise Tax on Corporations

By JOHN YOUNG

The New York franchise tax on corporations is a subject of importance to assessment lawyers, accountants and bookkeepers associated with corporations exercising privileges within the state of New York and it is essential that the provisions of the statute governing the imposition of the tax be adaptable to a comprehensive analysis, that the same may be made the subject of an intelligent report based on the results sought to be obtained when the act was passed. Unquestionably a confusion of ideas is prevalent as to the precise significance of the various questions embodied in the form of report issued by the comptroller, and though it is without the scope of this article to attempt to treat the subject so exhaustively that reference to books dealing with the matter in a broad sense would not prove advantageous, yet an effort will be made to explain the text of the statute and to demonstrate the practicability of applying its terms to a statement prepared on the basis of sound accounting practice.

Section 182, chapter 60 of the consolidated laws of the state of New York requires that every corporation, joint stock company or association liable to pay a tax under the section shall on or before November 15th in each year make to the comptroller, on a form prescribed by him, a written report of its condition at the close of business on October 31st immediately preceding.

The enactment provides that:

For the privilege of doing business or exercising its corporate franchises in this state every corporation, joint-stock company or association

doing business in this state shall pay to the state treasurer annually in advance an annual tax to be computed upon the basis of the amount of its capital stock employed during the preceding year within this state and upon each dollar of such amount.

It will be apparent from the above that the intention of the legislature was not to impose a property tax but to assess all corporations for the right of exercising privileges which the state granted to them. As far as foreign corporations are concerned the privilege is that of "doing business," but before such corporations may be subjected to the taxing power of the state it must be definitely established also that capital stock was actually employed within the state. Without those two conditions of fact the state has no jurisdiction under the act to impose a tax. The question as to whether or not a foreign corporation has in fact done business within the state must be determined by "its nature, character and extent and not whether it possesses the natural or contractual right to carry on such business." As only a domestic corporation can legally exercise a corporate franchise, it need only be proven that capital stock has been employed in the state to justify the tax, coincident with the fact that the franchise is being exercised. There was no intention, however, when the act was passed to discriminate between foreign and domestic corporations to the possible detriment or advantage of either one and hence the law grants equal protection.

Of vital significance is the precise meaning of the term "capital stock" for without a full knowledge of this, the preparation of the report cannot be conducted on any rational basis. It has been held to refer to the "property of the corporation contributed by the stockholders or otherwise obtained by it and not the shares of stock." The word "property" simply stated means nothing more or less than assets of every description even though a corporation's funded indebtedness may consist of, in addition to issued capital stock, bonds, notes, mortgages, etc. Provision is made, however, in the comptroller's form for recording liabilities of every description, so that, after listing all the assets and deducting the total liabilities therefrom, the net result will represent the book value of the stockholders' interest over or under par value of the shares according to whether there is a surplus or deficit. This in effect is equivalent to a statement of assets corresponding to a sole liability of issued capital stock.

New York State Franchise Tax on Corporations

The fact that the surplus or deficit may not be the creation entirely of the capital stock issue does not affect the situation. It must be borne in mind that the statute is confined to "capital stock employed" and all assessments for tax levying purposes must be determined on that basis.

Capital stock may now be defined as capital consisting of assets less ordinary liabilities, the net result of which corresponds to issued capital stock, surplus profits and premiums on sales of stock or to issued capital stock less working deficit and discounts on sales of stock. The book value of the stockholders' interest or in other words the gross value of the capital stock employed should be clearly demonstrated in the report. Section 193 of the statute provides that, where corporations are not paying dividends or paying dividends less than six per centum, the capital stock must be appraised at its actual value. In the latter case this "actual value" may not be the book value of the stockholders' interest, for the form of oath prescribed by the comptroller requires that the appraised value of the capital stock be not less than the average price at which it sold.

The enactment further provides that:

The measure of the amount of capital stock employed in this state shall be such a portion of the issued capital stock as the gross assets employed in any business within this state bear to the gross assets wherever employed in business. For purposes of taxation, the capital of a corporation invested in the stock of another corporation shall be deemed to be assets located where the physical property represented by such stock is located.

The method of determining the value of the capital stock employed within the state is to find the total amount of assets located in New York state and deduct therefrom such proportion of the total liabilities as the ratio of assets within the state bears to the total assets. If unaffected by average selling price of the stock, the above method of computing the assessment will, allowing for slight differences due to percentage calculations, be in agreement with the result arrived at by the comptroller whose method is fully demonstrated in the statement of condition on page 345. The report does not require that the liabilities be distinguished between New York state and otherwise and in so far as it may be prepared on the basis of a funded indebtedness of issued capital stock only, no exception can be taken to the system

of apportionment as above described for there is no feasible method in existence, if a company's operations are extensive, of ascertaining the precise distinction indicated. A court decision nevertheless held that a foreign corporation could only deduct from the capital employed within the state the amount of its indebtedness within the state, and from this it is fair to assume that the decision is equally applicable to a domestic corporation. Where a company's report has been prepared on the basis of issued capital stock and other funded indebtedness, the system of apportionment of the total liabilities to the total of assets located in the state becomes a different matter, unless the assets corresponding to other than the issued capital stock and its accompanying liabilities are listed in the column of assets located within the state.

For instance, if a company has a bond issue represented by property without New York state, or a mortgage of the same nature, and the property value of such is listed among the assets located without the state, the method of apportioning the total liabilities to determine the assessment will entirely destroy the theory of "capital stock employed." Even if the assets are actually located without the state it is incorrect to list them as such so long as the present system of apportionment prevails, as otherwise the state of New York is placed at a disadvantage, except in cases where the assessment is based on an average selling price of the stock greater than the value of the genuine capital stock employed in the state.

In the case of capital invested in the stock of other corporations this is an important feature of the tax law. It is properly taxable in a measure as it could be exchanged for other assets and even if the issuing corporation accounts for it wholly as assets within the state yet there is a distinct difference between the property of shareholders in their shares and that of the corporation in its capital stock. But note the use of the term "physical." This can only designate tangible property, and yet the courts have decided that as the tax is not a property tax, property which is exempt from taxation as property such as goodwill, patents, patent rights, copyrights, etc. is nevertheless subject to the terms of the statute. It is fair to presume therefore that the word "physical" should not be accepted in its literal sense.

The remainder of the statute is devoted to tax rates and the

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modes of determining assessments. The tax rates are dependent upon the business prosperity of the company making the return shown by the action of directors in declaring and paying dividends. The following table will give a clear idea as to the rates imposed under different conditions and the bases of computation.

<i>Condition</i>	<i>Rate per \$1,000</i>	<i>Value of capital stock employed within state</i>
1. No dividend declared	\$.75	Actual over or under par average selling price no factor
2. Dividends declared less than 6% per ann.	\$.75 \$1.50	Actual under par } Actual over par } to be adjusted to average selling price basis if greater
3. Dividends declared of 6% or over per ann.	\$1.50 6% div. \$1.75 7% div.	Actual to be adjusted to par value average selling price no factor

It has been noted that the form of oath requires that the capital stock be appraised "at not less than the average price at which it sold, etc." This is inconvenient for non-dividend-paying corporations if the average selling price is greater than the actual value per share as the assessment in such cases is not affected by market conditions of the stock. Corporations paying 6% or over in dividends per annum need not appraise their capital stock as the exemption is permitted under section 193 of the statute. As many corporations paying dividends less than 6% per annum are required to appraise their capital stock at an amount greater than the actual value, it would seem equitable that those paying 6% or over should be required also to make their official appraisals on the basis of par value.

Summing up the situation, it appears the assessment must be on one of the following bases before the tax may be levied: (a) Actual value of capital stock employed within the state; (b) actual value increased to average selling price; (c) actual value adjusted to par value.

According to the latest amendment, in order to determine the annual rate of dividends for taxation purposes, the total amount of dividends which have been paid during the year must be divided by the amount of assets of the corporation during the first day of such year. Such a process sets aside the question of dividends officially declared within the year and therefore it is quite possible that a company may have declared a dividend within the year and yet come under the class of non-dividend-

paying corporations as no dividend was actually paid out of surplus during the year. A reasonable definition of the word "paid" also can only mean "declared payable within the year." Though it is essential that some system be in vogue to determine whether a company is declaring dividends under or over 6% per annum, it cannot be said that the use of the gross amount of assets as the divisor is reasonable, though it would always seem to operate in favor of the corporation. In the writer's opinion the total amount of dividends officially paid within the year should be divided by the amount of issued capital stock at par on the first day of such year. Before leaving the question of dividends it should be noted that a stock dividend has been held within the meaning of the act unless the records show that it did not constitute profit.

The reader is now informed as to the general provisions of the statute, and the form of the report designed by the comptroller will now be mentioned. A section of the report embodies questions irrelevant to the financial condition of the company making the return, and as they should offer no difficulty to the person responsible for the preparation of same they will not be treated in this article. The questions regarding dividends declared also will be passed over as it has been shown that the necessary information should concern dividends paid only. The following questions, which have been arranged in more definite form, require certain explanations before proceeding to the main section, and it should be stated that the text has been changed slightly and superfluous wording eliminated.

- I (6. 7. 9. 10) Capital stock issued *vis.*:
- | | | |
|--|-----------------------------------|-------|
| Common stock..... | shares of par value of \$....each | \$ |
| Preferred stock..... | shares of par value of \$....each | \$—\$ |
| For cash or property | | |
| For goodwill, copyrights, brands, pa- | | |
| tents, trademarks, formulae, services | | |
| etc. other than cash or property | | \$— |
| <i>Total as above</i> | | \$— |
- II (8) Amount paid into treasury on each share of stock \$....
- III (33. 34) Bona-fide prices at which stock sold, *vis.*:
- | | Highest | Lowest |
|------------------------------|---------|--------|
| Common stock | \$..... | \$ |
| Preferred stock | \$ | \$ |
| <i>Average selling price</i> | \$ | \$ |
- IV (35) Percentage of capital stock employed in state of New York in manufacturing and in the sale of the product of same

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The answer to question No. 1 should reflect the actual position as of October 31st and not the average during the year ended that date. If the issue of the stock has varied throughout the year either by consideration or acquisition by company for treasury purposes, the total may not agree with the amount of capital stock issued on which dividends have been based. This report taken in conjunction with the previous year's report will show what increase in the issue has taken place during the year. The nature of the answer to the next question is a trifle doubtful but if no premiums or discounts have been created due to stock sales, the term "full paid" would probably meet the case or otherwise an answer may be expressed in dollars and cents stating the company's net average sale price of each class of stock. Question 3 may have a direct influence on corporations paying dividends of less than six per cent per annum.

The point may well be raised here as to the propriety of increasing the assessment according to the public opinion of the value of the stock evidenced by transactions on the stock exchange or curb market, for no one will contend that a corporation should suffer for the erratic views of its speculators, nor can it be held that the selling prices of the stock are any indication of a company's prosperity. Aside from this, however, the method of estimating the average on the highest and lowest sale prices is only justified by its simplicity, for the genuine average can only be found by the aggregate of the total sales prices and should a company evince any desire to arrive at a result by the latter laborious process, there is nothing in the statute to prevent it.

The last question has reference to that section of the act exempting certain corporations from the tax, *viz*: "manufacturing corporations to the extent only of the capital actually employed in this state in manufacturing and in the sale of the product of such manufacturing." Manufacturing corporations are specially taxed in a number of states and in a few it is provided that they shall pay an *ad valorem* tax upon the average value of raw materials as part of their property. The exemption only applies to corporations entirely engaged in manufacturing, and only then if it can be shown that at least 40% of the issued capital stock is invested in property in the state and used by it in its manufacturing business in the state.

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To refer now to the main section of the report—it has been mentioned that the gross value of the capital stock employed should be clearly demonstrated, but in addition to this it is well to show further its division as between New York state and otherwise, in accordance with section 192 of the act and for convenience these results will be expressed in the “statement of condition,” previously mentioned.

This, as now to be presented to the reader, is drawn up on the basis of monthly averages using the last day of each month in the computation. If the issued capital stock has varied throughout the year the necessity of determining average results is specially apparent, but in any case the monthly surplus or deficit must vary and also the specific asset distribution between New York state and otherwise. But if a condition were possible where the issued capital stock and the surplus or deficit did not vary during the entire year the gross capital stock employed would be similar to a balance sheet dated October 31st without the implication that the allocation of the assets would be of the same date. The appraised value of the issued capital stock without modification as to stock selling prices should properly be in agreement with at least twelve monthly balance sheets with the necessary provision in each for the allocation of the assets, the individual asset and liability totals of which have been averaged and agreed in total to a cent. There cannot be any truer method of finding “capital stock employed” in gross and within the state. The comptroller’s form uses the word “monthly” only in connection with the bank balance but whatever is implied by the distinction, the simplest way is to use the figures of the balance sheet section of up-to-date monthly trial balances. It is regrettable that no decision has been rendered as to the meaning of the word “average” in accordance with the provision of the act. The statement shown below with the exception of the order of the assets and liabilities has also been subjected to a rearrangement more in keeping with accounting practice, while the text is practically similar to the comptroller’s form. Imaginary figures are incorporated that the assessment on the basis of par value or average selling price principally may be easily understood.

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STATEMENT OF CONDITION

ON THE BASIS OF MONTHLY AVERAGES

FOR YEAR ENDED OCTOBER 31, 191..

Assets

	In state of New York	Outside state of New York	Total
I (19.26) Stock-in-trade carried ...	\$ 48,210.00	\$ 18,240.00	\$ 66,450.00
II (20.27) Bank balance employed ..	23,625.00	38,479.00	62,104.00
III (21.28) Bills and accounts receivable	49,214.00	27,622.00	76,836.00
IV (22.29) Shares of stocks of other corporations doing business	12,000.00	15,000.00	27,000.00
V (23.30) Personal property including bonds, loans on call and other financial securities other than heretofore mentioned employed	361,733.00	546,059.00	907,792.00
VI (24.31) Gross value of real estate owned and located	15,750.00	10,149.00	25,899.00
	<u>\$510,532.00</u>	<u>\$655,549.00</u>	<u>\$1,166,081.00</u>

Liabilities

Bonds unsecured by mortgage	\$100,000.00
Mortgages	10,000.00
Bills payable	2,430.00
Accounts payable	27,224.00
Miscellaneous	869.00
Gross capital stock employed <i>vis</i> : 10,000 shares at \$102.56 per share	
Shares	
4378 In state of New York	
$\$510,532.00 \div \$1,166,081.00 = 43.78\% \times$	
$\$1,025,558.00 = 448,989.29$	
5622 Outside state of New York	576,568.71
10000	
	<u>\$1,166,081.00</u>

In the example cited, the corporation making the return is presumed to have an average issued capital stock of \$1,000,000 divided into 10,000 shares of the par value of \$100 each with an average surplus of \$25,558.00. Unless the surplus has been reduced by a cash or stock dividend declared payable within the year, the assessment will be \$448,989 with a tax rate of 75 cents per \$1,000 giving a tax of \$336.74. If the annual dividend rate to be determined as provided amounted to less than 6% per annum and the net result of average surplus and deficit equalled a deficit, the gross capital stock employed would show

a valuation per share below par and if such valuation were not below the average selling price the tax would be similar to the above. If again the valuation per share amounted to \$98.00 and the average selling price were \$101.00, the tax would be the same but computed on a greater amount of capital stock employed within the state than shown by the statement. As the example shows a condition where a surplus exists, the assessment can only vary if the dividend rate is less than 6% per annum with an average selling price above \$102.56 per share or if the dividend rate is 6% or over per annum. In the former case if the average selling price is \$103.00 the assessment will be \$450,934 which at \$1.50 per \$1,000 results in a tax of \$676.40 and in the latter case the assessment will be \$437,800; and if the dividend rate is say 6.27% it is fair to presume that the tax rate will be \$1.5675 per \$1,000, equal to a tax of \$686.24.

The proper method to pursue in incorporating the figures is to fill out the total asset column first and then the liability column to determine the value of the capital stock as the remaining balance, and finally to distribute the assets between New York state and otherwise. Before attempting to explain the allocation in accordance with the asset classification shown on the statement, it should be stated that before the tax is applicable it must be shown that the capital stock has been actively employed, but if even for a portion of the time only, the terms of the statute will apply. It has been held also that a corporation may only be assessed proportionately for the time it has been in business. The question of surplus earnings is an important one. Capital employed should be distinguished from surplus invested but in the absence of evidence that it is surplus, it will be regarded as capital. If it can be clearly established for instance that there was a surplus investment in real estate within the state and not used for business purposes it will not be regarded as capital employed within the state. Again the court decided that stocks and bonds purchased by a domestic corporation with its surplus which it might have distributed as dividends were not taxable. It must not be inferred from this, however, that reserve and other appropriations from surplus for other purposes than the payment of dividends should be entirely employed in the reduction of the value of assets located within the state. The court further decided in a certain case that the surplus earnings

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of a foreign corporation were not taxable as capital employed within the state. But what corresponding assets are to be set aside so that they will not be included in the assessment? As capital includes surplus earnings it would seem, nevertheless, that, provided it can be established that the foreign corporation is doing business and employing capital stock within the state, such corporation would not be entitled to a reduction from the assessment for all of its surplus or such as proportionately applies to New York state, for the effect would be, eliminating average selling price valuation, a value per share within the state never over par. A superficial glance at the statement reveals the fact that a company's assets and liabilities must be confined to certain specific questions. All deferred charges and credits, reserves, etc. are properly eliminated and applied where they would naturally belong. Personal property is expressed in questions I to V and real property in question VI, and this absorbs every asset. The total of the liabilities represents an indebtedness to be liquidated in some form or other. Question V includes all other personal property or every other remaining asset not covered in the other question. In preparing the statement it should be remembered that "value" is intended and where reserve deductions have been made from the book value of any of the assets, the company should be able to substantiate them as being reasonable and in accordance with established usage. An attempt will now be made to show what are assets located in the state within the meaning of the act.

I. Stock-in-trade:

Covers the inventory of all merchandise actually located in the state from time to time, with the exception of consigned goods. A corporation would be entitled to use the average market or cost prices of goods in determining the total value, whichever is lower. In the former case if lower than cost the difference might properly be construed as a reserve for depreciation in value.

II. Bank balance:

This does not mean the monthly bank balances on hand in banks situated within New York state, unless the business is wholly within the state, and all the capital stock is employed in the state; and even in such cases if the company's bankers are located outside the state the balances are actually employed within the state. The allocation should not be difficult if it is borne in mind that the balance employed in the state should be such an amount as is sufficient to maintain and properly

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to conduct the entire business done in the state. But if the amount employed is greater than necessary a deduction would not be in order.

III. Bills and accounts receivable:

Bills receivable on account of business done outside of the state with parties outside the state do not constitute capital within the state. This decision is equally applicable to accounts receivable, but it is not intended here that consideration must be given to the question whether the debtors are doing business within the state or not, for such is impossible. If the domicile of the debtors is without the state, and the assets are clearly the result of the company's operations within the state, the tax will be imposed. The debtor balances accruing from transactions within the state should be determined and accordingly included in the basis of computation.

IV. Shares of stocks of other corporations:

This has been mentioned previously. To distribute the value of this stock between New York state and otherwise, it must be determined if the business of the issuing corporation is wholly without the state or not. If partly within the state, the stock must be shown under assets within the state. Stock, however, acquired by a domestic corporation in exchange for patent rights constitutes capital within the state if the issuing corporation is domestic, or capital without the state if the issuing corporation is foreign.

V. Personal property, including bonds, etc.:

It is quite out of the question to treat this subject as broadly as it might warrant, but all court decisions bearing on the items of property comprehended will be mentioned. Money invested in securities entirely distinct from business transacted by the corporation is not capital employed within the state, but money invested in stocks and bonds of a kindred corporation or of some corporation whose business would add profit to the investing corporation is capital of the investing corporation within the state. Bonds of a foreign corporation acquired by a domestic corporation in exchange for patents constitute capital within the state. Rolling stock of a railroad is capital within the state except what is used exclusively without the state, and again it has been held that steamboats plying between Buffalo and other ports on the Great Lakes do not constitute capital within the state. Apparently no hard and fast rule may be applied and the circumstances of each individual case must be considered separately.

Of special importance is the question of goodwill and other intangible assets. It has been claimed that goodwill cannot be part of the capital within the state, but this seems to depend on whether it is carried on the books for value or not. If there is a value it is taxable in so far as it is connected with business within the state. Goodwill is inherent in a business and exists where it is carried on, yet many reasons might be advanced in favor of an allocation of goodwill which would prove of

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advantage to the corporation making the return. Patents and patent rights owned by a domestic corporation constitute capital within the state; probably it would not be so if the corporation were foreign. Copyrights owned by a foreign corporation are not capital within the state; but the case would apparently be different if the company were domestic. Again, value of trade-marks may be the subject of taxation.

VI. Gross value of real estate:

Money invested by a domestic corporation in real estate has been held not to be capital within the state. This decision is at least conflicting, for in such circumstances a domestic corporation would be entitled to state the value of the realty under assets without the state, wherever the property might be situated. If the realty is in the state it is the writer's opinion that the answer to the comptroller's question should state the real condition. Although it is not the usual practice to appreciate value of realty, it does not follow that depreciated values of realty may not be adopted in incorporating the figures; but a good reason should be advanced for doing so. Any temporary fluctuation in value is insufficient to warrant a reduction from the gross book value. There are many conditions, however, where property may have depreciated permanently for cause.

The reader has no doubt come to the conclusion that to ascertain the amount of capital stock employed in a state when a company's operations extend beyond that state is rather a complex matter, and the writer is not disposed to dispute the point. It is to be hoped, however, that the foregoing will furnish those interested with a clearer conception of the intentions of the legislature when the law went into effect for it is absurd to suggest that, even with a full transcript of the statute supplemented by the comptroller's form, the subject is one simple of elucidation. Taxation of "capital stock employed" is also in vogue in Pennsylvania and Massachusetts, but in New Jersey the tax rate is graded according to the issue of the stock—a plan to be commended for simplicity, though it has this disadvantage: that the measure of a company's prosperity is not a controlling factor. It would, nevertheless, be possible to obviate the disadvantage by imposing a tax according to the total issue of stock supplemented by a sworn certification of the estimated profit or loss.

Apportionment of Profits of Building and Loan Associations

BY GEORGE G. SCOTT, C.P.A.

It may be well to preface this article with the statement that the primary object of a building and loan association is to render financial assistance in the process of providing homes for its members or shareholders, and to offer to such as do not desire assistance in the purchase of homes a co-operative institution for the investment of weekly or monthly savings. The lending of the receipts is confined to the members or shareholders and is repaid by the process of crediting to the subscription the weekly or monthly instalments and its net profits, until the dues paid in and the profits earned aggregate the amount of subscription, or par value of the share.

It is a custom, chiefly for accounting purposes, to issue stock at regular or stated periods, and each periodical issue of stock is called a "series" and the plan the "serial plan." The net profit of the association is derived chiefly from interest paid by shareholders on the loans made them, and when the stock matures by the process of the coming together of the dues paid in and the profits, instead of issuing the stock as fully paid to the shareholder, the member, if not a borrower, is paid the amount representing the subscription in cash, and in case of a borrower the debt representing the loan is cancelled; in both cases he ceases to be a member or shareholder.

It is clearly seen that the apportionment of profits must necessarily be subject to the co-operating functions, and in a manner to preserve the mutuality of participation, computed upon an equated basis of instalments of shares of different ages and of different values. The accounting method of apportionment in the process of determining the book value of the shares is more or less a complicated problem that is not generally understood.

MUTUALITY OF PARTICIPATION

Mutuality of participation in the net profits earned upon a partnership basis means that each share or series shall participate

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in the entire net profits of the association upon an equated basis of the instalments, that will require the same length of time to mature each and every share or series, earning profits at the same participating capital percentage rate.

There are three prominent factors concerned in the accounting process of apportioning net profits, *viz.*: Participating capital, net profits, and capital percentage. One of these factors, net profits, is shown by the books, the capital percentage is found by dividing the amount of net profits by the amount of participating capital and it is therefore seen that only one of the factors, the participating capital, may present some difficulty in obtaining.

PARTICIPATING CAPITAL

Participating capital may be defined as follows: The participating capital of the payments of a share is an amount that equals such sum, which if paid to the association at the beginning of the year, will earn during the year, the same amount of profits as would be earned by the share instalments, computed at the same percentage rate.

For example, an association is selling its shares of the par value of \$100 on instalments of \$1 per month. It is maturing its shares with 82 payments, or earning \$18 with 82 payments or in 82 months. What amount would be required to earn \$18 in one year at the same percentage rate as is being earned by the instalments? In other words, what is the participating capital of a share 82 months old, payments \$1 a month? It is found by the following rule:

Multiply the number of payments by one half of the number, add the multiplier to the product, and divide the sum by 12 if payments are \$1 per month, divide by 24 if payments are 50 cents per month, divide by 6 if payments are \$2 per month, divide by 208 if payments are 25 cents per week.

Example: What is the participating capital of a share 82 months old, payments \$1 per month?

Solution: Multiply the number of payments (82) by one half of the number (41) the product is 3362; add the multiplier (41) and the sum is 3403; and divide by 12 because the payments are \$1 per month; the quotient is 283.58 or \$283.58. The sum of \$283.58 will earn the same amount of profits in one year as the entire 82 payments earned, computed at same percentage.

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If the earnings were \$18, the percentage would be found by dividing \$18 by \$283.58 which is (dropping further decimals) .0634.

Example: What are the profits of a share four years old in an association maturing its shares with 82 monthly payments of \$1?

Solution: The participating capital is found by the foregoing rule as follows: A share four years old represents 48 payments when dues are \$1 per month. Multiply 48 by one half of the number (24) the product is 1152, add the multiplier (24) and the sum is 1176, divide by 12 and the quotient is 98 or \$98. If the association is maturing its shares with 82 payments of \$1 per month, it is earning a percentage rate of .0634, therefore the profits of this share would be \$98 multiplied by .0634 which is \$6.21.

The book value is found by adding the profits (\$6.21) to the dues paid in, which in this example are \$48, making \$54.21 the book value.

The success of obtaining a large membership frequently depends upon the ability of the association promptly to make the loans applied for by its members, and the tendency is especially to encourage non-borrowers to join; in many cases, inducements are offered for this class of shareholders. Paid up stock is sold for cash at a discount, or dividend bearing paid up stock is sold. An association selling paid up stock or dividend bearing paid up stock may be confronted with some difficulty in apportioning profits, if profits are to be distributed upon a basis of preserving the mutuality of participation.

If the association desires to sell a paid up stock by allowing a discount that equals the estimated profits it will earn, the amount required is found by the following rule:

Multiply the capital percentage by the age (in years) it requires to mature a share, add to the product \$1.00, and divide the par value of the share by this sum.

Example: What amount paid in as an advance payment will mature a share of stock par value \$100 in 82 months, monthly instalments of \$1. (This being the time required to mature a share.)

Solution: If the association is maturing its shares in 82 months with \$1 per month, it is earning a rate of .0634. Multiply the percentage (.0634) by the age in years it is required to mature the share (6-5/6) the product is .4332, add \$1.00, the sum is \$1.4332, which represents one dollar and its earnings for 6-5/6 years. If \$1 would amount to \$1.4332 in 6-5/6 years, it would take as many dollars to amount to \$100 in 6-5/6 years, as \$1.4332 is contained into \$100, which is \$69.77.

In case an association desires to sell dividend bearing stock,

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that is, paid up stock, at a certain paid up cash price and pay dividends on same, the remainder of profits to be credited to the prepayment, and desires to know when this class of stock matures, it is found by the following rule:

Deduct from the capital percentage, the percentage to be paid out as a cash dividend, multiply the remainder by the amount of the advance payment, and divide the amount necessary to mature by this product.

Example: When will a share of stock of the par value of \$100 sold at \$90 cash mature when cash dividends of 5% on the \$90 are paid annually, and the association is maturing its shares with 82 monthly payments of \$1.00?

Solution: If the association is maturing its shares with 82 monthly payments of \$1.00 it is earning a percentage rate of .0634. Deduct the dividend (.05) and the remainder of .0134 represents the percentage of profits to be credited to the share each year. The amount is found by multiplying the \$90 by the percentage .0134 which is \$1.206. It requires a total profit of \$10.00 to mature the share; therefore it will require as many years to mature the share as \$1.206 is contained into \$10 which is 8.291 years.

The participating capital method of distribution is practical and admits of the establishment of a number of rules adapted for accounting purposes, not practicable by any other method.

There are several other methods of distribution used, which may be supported by authorities, for determining the book value of the share, among which can be mentioned, the "compound interest method," "average age method," "half of the age method," "power method," and "arbitrary method."

COMPOUND INTEREST METHOD

The "compound interest method" is used by many associations, and the method is supported by such authorities as Mr. Montgomery in his *Auditing Theory and Practice* as well as other well-known accountants.

This method is based upon the theory that the book value of the share, representing both the dues and profits, is its participating capital, instead of the theory that is used in some other methods, based upon a participating capital representing the instalments only. The advocacy of this theory admittedly denies the right of partnership in the distribution of all the profits and recognizes a partial individualization of the shares or series in the process of apportionment.

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Advocates of this theory recognize the earnings as interest, and not profits; also they appear to overlook some of the factors underlying the principle, upon which the business of a building and loan association is based.

Building and loan associations that are co-operative in their functions and that preserve mutuality in participation in profits and losses, cannot divide their earnings until a series or share matures, and the accounting process used in determining the book value of a share before it has matured is not a distribution of its profits. The process cannot be correct, unless it preserves the mutuality that should distinguish the apportionment at the time a series or share matures.

The advocates of this theory in the exemplification of its practicability have never agreed at what period the book value of the share should be ascertained, in order to maintain the adequacy of distribution. If the dues and the interest on loans are paid in weekly, it is clear that profits are being earned on a weekly compound basis; if paid in monthly the profits appear to be earned on a monthly compound basis, and invariably the percentage of earnings is an uneven or fractional amount, which in the application of the theory presents a clerical situation of considerable difficulty, which precludes the practicability if not the possibility of accurately carrying out the theory in the process of distribution.

If this method of apportionment is equitable because of the ease in identifying a certain amount of earnings as theoretically belonging to a certain series or share and excluding certain series or shares from participating, it is equally just to accord to the young series or share the right to claim the entire income from its admission fees and forfeitures and exclude the old series or shares in the process of distribution.

The fallacy of the theory of this method is not better illustrated than by the fact that the oldest series or share is matured in advance of any other series or share, earning at the same rate of profits, which destroys the principle of co-operation and partnership relationship of one series with another.

POWER METHOD

The "power method" of distributing profits, used extensively and recommended by prominent authorities, when analyzed is

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found to produce incorrect results. It is based upon the principle that one-half of the age of the share represents the average time of investment. The half of the age of a share is not the average age of the investment or the correct earning power.

One-half of the age of a share twelve months old is six months, but it does not mean that earnings of the payments of the first six months were the same as the earnings of the last six months' dues, computed at same rate. In other words the half of the age of the share is not the average age of the share.

The "power method" can be satisfactorily used only with the serial plan, and the series must be issued regularly and the apportionment made at a favorable time in order to lighten the clerical work incidental thereto.

The powers are obtained by taking a share of the youngest series which is six months old, as representing power one; a share of the second series twelve months old being twice as old and twice as much paid in, the power would be twice two which is four; the third series being eighteen months old, its shares being three times as old as the first share named and three times as much paid in, its power would be three times three which is nine and so on until the powers were found of a share of each series. It is seen that the equation is based upon the age of the share instead of its average age, or average time of investment and is therefore incorrect to this extent.

The powers of the series are obtained by multiplying the number of shares of a series by the share power of the series, and the total undivided profits are divided by the sum of the powers of the different series to obtain the computation percentage by which the share power is multiplied in order to obtain the profits for the share.

This process or method can be used in various ways in computing the apportionment, the results being the same and all incorrect.

AVERAGE AGE METHOD

The average age method or average time of investment method, is practically the same process as the "participating capital" method herein exemplified.

The results obtained are the same. The rule is as follows:

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Add one to the total payments, divide the sum by two, multiply the quotient by the total amount of dues paid in, and divide the product by 12 if the payments are \$1.00 per month, if payments are \$2.00 per month divide by 6, if payments are 50 cents per month divide by 24, if payments are 25 cents per week divide by 208.

Example: What is the participating capital of a share two years old in an association, dues \$1 per month?

Solution: The share two years old represents 24 monthly payments. Add one to the number of payments (24) the sum is 25, divide by 2 and the quotient is the average age of the share's payments, which is $12\frac{1}{2}$, multiplied by the total dues paid in (24) the product is 300 or \$300, which represents the equation of the payments; that is \$300 would earn in one month the same as would be earned by the 24 payments at the same rate. Divide the \$300 by the number of months in a year (12) and the quotient is \$25, that is the sum of \$25 will earn in one year the same amount of profits as would be earned by the total 24 payments, computed at same rate.

It will be noted that a system or plan for the extension of rural credits is becoming a question of national interest, and the most practical suggestion presented so far has been in line with the principle that characterizes the business of the building and loan association.

There are a great many associations considering the advisability of instituting a special series for the farmer, which will enable him to subscribe for stock or become a member, with the instalments to be due and payable at the most suitable periods to suit the conditions and ability of the farming classes of the community. The instalments would have to be payable at certain intervals, entirely different from the weekly or monthly plan, and the question of apportioning the profits to preserve the mutuality in such a case appears to create a difficulty in properly distributing the profits not heretofore experienced.

If an association selling its stock, par value \$100, for payments of \$1.00 per month and maturing it with 82 payments, desires to open a series for the farming classes with payments \$3.00 on May 1st, \$3.00 on Oct. 1st, \$3.00 on Nov. 1st and \$3.00 on Dec. 1st, of each year, what would be the book value of a share at the expiration of six years?

The participating capital must be found for the entire payments, by first finding the participating capital of the payments in one year, which is \$3.50; that is, the sum of \$3.50 would earn

Apportionment of Profits of Building and Loan Associations

in one year the same amount as would be earned by the four payments, computed at the same rate. The participating capital of the initial payments for the six years would be six times \$3.50 which is \$21.00. That leaves the sum of \$12, payment, to earn profit for five years, which is equal to \$180.00 for one year, or the participating capital of the \$12 would be \$180.00, this added to the \$21.00 makes \$210.00 the participating capital for the share. If the association is maturing with 82 monthly payments of \$1 it is earning a percentage rate of .0634, and the profits of the share would be found by multiplying the participating capital (\$210) by the percentage (.0634) which is \$12.74 and this added to the total dues paid in (72) would make the book value of the share \$84.74.

ARBITRARY METHOD

It is not uncommon to find associations using some form of an arbitrary method or basis for the distribution of profits. In such cases the association assumes that its earnings justify the distribution of profits upon a basis of 6% compounded or 5% compounded, and apportions profits upon this basis. In other cases certain values are adopted as representing the value of a share at a certain date. If any undivided earnings are left they are credited to surplus account.

The question may arise as to the ownership in case of a credit in the surplus account representing an amount set aside or unapportioned, or who is responsible in case of a deficit.

If the profits are distributed by methods which will leave any material amount undivided, it may be a question whether or not the association is not subject to the income tax laws. The mutuality of participation may be seriously affected by an arbitrary process of apportioning the profits.

Depreciation Reserves vs. Depreciation Funds

BY EARL A. SALJERS, PH.D.

Instructor in Accountancy, Lehigh University

The subject of reserves and funds occasions much misunderstanding. An examination of present day practice shows no unanimity of opinion upon the use of these two words. Not only are they employed loosely, but interchangeably. Some writers have shown their true meaning, but in practice little uniformity exists. A variety of conditions makes the employment of reserves beneficial; likewise funds. But debts, contingencies, accommodation paper, bonded indebtedness, depreciation, etc. admit of their useful application.

The manipulation of depreciation on the books is quite apart from the study of the principles that govern its amount and the method of determining it. Depreciation charges are adjustments—made at the end of a period to remedy discrepancies between book accounts and the things whose values they indicate. Such discrepancies are sometimes in approximate proportion to time expired; but again they bear no relation to time. An instance of the former is depreciation of houses from weathering¹; of the latter, destruction by wind or fire. Between such extremes are other forms of deterioration, the extent of which is more or less directly proportionate to time. The amount of the depreciation determined, the accounts must indicate it and make provision for future replacement costs.

The nature of the asset usually indicates the manner in which it will depreciate, and perhaps suggests the best method of determining its amount. But this has been touched upon in a former article. Let us now consider how to indicate these changes on the books and to forestall their effects.

Two different things should be done, *viz.*: (a) write down book values to actual values², carrying the amount written off to the profit and loss account, and (b) provide funds to replace

1. Amortisation, as applied to bonds, is a perfect example of values varying with passage of time.

2. This, of course, may be done without crediting the asset account, by deduction of a "reserve" account from the asset account.

Depreciation Reserves vs. Depreciation Funds

the assets when worn out. Failure to distinguish carefully between these two procedures leads to much confusion. It is an axiom that capital, and therefore assets, must not be impaired, or the prosperity and even the existence of an enterprise, corporate or otherwise, will be endangered. Corporations exist by the sanction of the state, and the preservation of their capital is obligatory; otherwise it is voluntary. In any event deterioration of the value of ordinary assets is to be deplored. Preservation of assets is not accomplished by the omission of the depreciation charge. Apparent preservation may be accomplished, but evil will result later.

As noted, funds for future replacements must be provided. These should come out of the legitimate income of the business. The depreciation reserve indicates the sum that will be necessary to make such replacements, prevents its distribution as profits, but does not set it apart and label it for that specific purpose. This is accomplished by the establishment of a depreciation fund. To do this requires an entry distinct from the depreciation charge.

While the depreciation reserve tends to preserve assets by reducing apparent net profits to actual net profits, and so avoids distribution of capital as profits, future replacements will have to be made out of the general funds of the treasury. But there is no guarantee that these will be sufficient, other than the general policy of the management. On the other hand, a fund designated on the books for a definite object, though not inviolate, does possess at least a partial guarantee that it will be so employed. To illustrate, corporation X, owning a factory building costing \$50,000.00, having an estimated lifetime of thirty years, forms a depreciation reserve by each year crediting an account entitled "reserve for depreciation of factory building" and charging profit and loss. In the balance sheet of X this is shown either as a liability, thus,

BALANCE SHEET OF X, AS AT———

Factory building	\$ 50,000.00	Capital	\$100,000.00
Other assets	53,000.00	Reserve for depreciation of factory bldg.	1,000.00
		Dividends payable	2,000.00
	<u>\$103,000.00</u>		<u>\$103,000.00</u>

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or, preferably, as a deduction from the corresponding asset, thus,

BALANCE SHEET OF X, AS AT———

Factory bldg. .	\$50,000.00	Capital	\$100,000.00
Less: Reserve for deprecia- tion	1,000.00	Dividends payable	2,000.00
	\$ 49,000.00		
Other assets	53,000.00		
	<u>\$102,000.00</u>		<u>\$102,000.00</u>

This prevents impingement upon capital, by limitation of distributable funds as profits. Had no charge to depreciation been made the balance sheet would have been,

BALANCE SHEET OF X, AS AT———

Factory building	\$ 50,000.00	Capital	\$100,000.00
Other assets	53,000.00	Dividends payable	3,000.00
	<u>\$103,000.00</u>		<u>\$103,000.00</u>

and after payment of dividends,

BALANCE SHEET OF X, AS AT———

Factory building	\$ 50,000.00	Capital	\$100,000.00
Other assets	50,000.00		
	<u>\$100,000.00</u>		<u>\$100,000.00</u>

leaving assets overvalued by \$1,000.00.

The retention of sufficient funds, by means of the depreciation reserve, is the essential step. If these are permitted to remain a part of the general funds of the business they are naturally reinvested and give rise to no further consideration.

The problem of interest will not arise. But if we determine to earmark such funds and set them apart, further consideration is necessary.

Sinking funds bear a sufficiently close analogy to depreciation funds to make their consideration here valuable to illustrate principles. Provision is made in trust deeds for the creation of sinking funds to liquidate bonded indebtedness, by requiring specified amounts to be paid into the hands of a trustee at designated intervals. These instalments are permitted to ac-

Depreciation Reserves vs. Depreciation Funds

accumulate at compound interest until required to pay the obligations, the liquidation of which is the purpose of the fund.

Funds created for the replacement of buildings, machinery, etc., are not, it is true, controlled by contract obligations; consequently the management retains full power over them. Otherwise they do not differ from sinking funds. The same formulas that are employed to compute payments to a sinking fund may be applied to depreciation funds. Interest may be handled differently in the two cases as a matter of policy. If securities of other corporations are purchased for the depreciation fund, it may be more convenient to mingle the revenue derived therefrom with the general income of the business, instead of adding it to the fund. The reason for this is that sinking fund trustees make a specialty of investments and can readily handle interest falling due, thus avoiding an excessive unproductive cash balance in the trust fund. Industrial corporations cannot look after matters of detail not a part of their own business. Therefore income from funds in their control can be employed more productively in the business, and will more than compensate for larger payments to the fund made necessary when interest is not added to it.

In THE JOURNAL OF ACCOUNTANCY for April, 1912, the writer discussed several formulas for finding the sums that must be set aside to accumulate in a given time to a given amount. For convenience two of these are reproduced here. If equal instalments are allowed to accumulate at compound interest, as in a sinking fund, then, A representing the amount of each instalment, S the amount to which the fund is to accumulate, r the rate of interest plus 1, and n the number of years to run, then,

$$A = S \frac{r - 1}{r^n - 1}.$$

Logarithms may be employed to solve this formula if the term of years is large, say more than twelve, because of the difficulty of raising r to the n th power by multiplication. But if interest is not added to the principal, the amount of each instalment is determined thus,

$$A = \frac{S}{n}.$$

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S being the sum accumulated after n years by paying equal instalments, A , into the fund.

Taking the simpler case first, if a corporation wishes to establish a replacement fund for, say, a building costing \$25,000.00, with an estimated life of twenty-five years, by application of our formula, we find the amount of each instalment to be \$1,000.00, thus,

$$A = \frac{25,000}{25} = 1,000.$$

Assuming that each year's depreciation amounts to \$1,000.00, this is brought into the books by the following entry:

Profit and loss	\$1,000.00
To reserve for depreciation of building	\$1,000.00

Next, having decided to establish a depreciation fund for replacement of the building, and having found a suitable manner in which to invest the \$1,000.00, the following entry is made:

Depreciation fund for building	\$1,000.00
To cash	\$1,000.00
for investment in, etc.	

The balance will then appear thus,

BALANCE SHEET OF Y, AS AT———

Building	\$25,000.00	Capital	\$50,000.00
Other assets	25,000.00	Reserve for depreciation	
Depreciation fund for		of building	1,000.00
building	1,000.00		
	\$51,000.00		\$51,000.00
	\$51,000.00		\$51,000.00

or, better still,

BALANCE SHEET OF Y, AS AT———

Building	\$25,000.00	Capital	\$50,000.00
Less: Depreciation re-			
serve	1,000.00		
	\$24,000.00		
Other assets	25,000.00		
Depreciation fund for			
building	1,000.00		
	\$50,000.00		\$50,000.00
	\$50,000.00		\$50,000.00

Depreciation Reserves vs. Depreciation Funds

Had no depreciation fund been established the balance sheet would have been,

BALANCE SHEET OF Y, AS AT———

Building	\$25,000.00	Capital	\$50,000.00
Less: Reserve for de- preciation	1,000.00		
	<u>\$24,000.00</u>		
Other assets	26,000.00		
	<u>\$50,000.00</u>		<u>\$50,000.00</u>

At the expiration of twenty-five years the depreciation reserve, having grown to the amount of the original building account, this account will vanish from the balance sheet, and the replacement will be made thus,

Cash	\$25,000.00	
To depreciation fund for building		\$25,000.00
For sale of investments in, etc.		
Building	\$25,000.00	
To cash		\$25,000.00
For construction of new building.		

Of course in practice such simplicity is impossible, but the principles apply, subject to adjustments for residual values, variation from expected lifetime of assets, etc.

If the sinking fund method of adding interest to principal is followed, the computations are a little more complicated. Suppose a corporation Y possesses a machine costing \$100,000.00, estimated lifetime ten years. A replacement fund is to be established, to accumulate at compound interest, four per cent being the assumed rate. Each annual instalment is,

$$A = 100,000 \times \frac{1.04 - 1}{1.04^{10} - 1} = \$8,329.09$$

which is transferred to the depreciation fund by the same procedure as in the previous case. As interest is received on the investments in the depreciation fund it is in turn invested in some suitable way, as follows:

Cash	_____
To reserve for depreciation	_____
Depreciation fund for machine	_____
To cash	_____

A study of twenty-two balance sheets given in recent reports of large American corporations shows great lack of uniformity in the management of reserves and funds. A fair proportion show reserves either as liabilities or as deductions from assets. Few indicate special funds, except sinking funds for the redemption of bonded indebtedness. The United States Steel Corporation balance sheet has an account on the asset side entitled, "Sinking and reserve fund assets." The Philadelphia Rapid Transit Company balance sheet shows "Reserve fund for renewals" on the asset side, and on the liability side, of equal amount, "Renewal reserve." The balance sheet of the Third Avenue Railway Company has an account on the asset side entitled, "Deposit for depreciation, renewals and contingencies," and on the liability side, "Reserve for depreciation, renewals and contingencies." The Pittsburg Brewing Company has a "Plant sinking fund" among the assets.

Sinking funds receive equally unlike names. The International Paper Company has "Sinking fund accounts"; the United Gas Improvement Company, "Sinking fund securities"; the Interborough Rapid Transit Company, "Sinking fund on 5%, 45-year gold mortgage bonds"; and the Bethlehem Steel Corporation, "Special funds in hands of trustees for redemption of mortgages."

The following companies indicate the depreciation reserve on the right side: Philadelphia Rapid Transit Company, Third Avenue Railway Company, Tennessee Copper Company, Interborough Rapid Transit Company, and Bethlehem Steel Corporation.

Sears, Roebuck & Company and Lehigh Valley Railroad Company show the reserve as a deduction from the assets. The report of Wells, Fargo & Company as of June 30, 1912, indicates "Reserve for accrued depreciation" deducted from property and equipment account, whereas the report for the preceding year lists it on the liability side—an indication of progress.

The Utah Copper Company balance sheet shows an account on the liability side entitled, "Appropriated surplus—sinking fund," while the balance sheets of Wm. Cramp & Sons, the Baldwin Locomotive Works, the International Harvester Company, the General Electric Company, the American Tobacco Company, and the Amalgamated Copper Company indicate neither reserves nor funds of any kind.

Depreciation Reserves vs. Depreciation Funds

These facts indicate a lack of uniformity, justifiable, perhaps, to a certain extent. Clearness in the balance sheet is, as a rule, aimed at; but in some cases it is difficult to believe that such is the intention. The balance sheet ought to reflect, not obscure, conditions. The proper tabulation therein of the depreciation reserves and funds is of much assistance to a sound presentation of facts.

Accounting System for a Municipal Hospital

BY D. CARL EGGLESTON, C.P.A.

When the municipal hospital for tuberculosis was opened at Lawrence, Massachusetts, outside accountants were engaged to introduce a modern system of accounts and records. The peculiar needs of a tuberculosis sanitarium were taken into consideration, and a system of accounts was devised upon which to base the administrative and operative policy. In form, compliance with the requirements of the bureau of statistics of the state of Massachusetts was necessary.

The hospital was directly under the supervision of the visiting physicians and the supervising nurse. The various wards for men and women were in charge of nurses. The housekeeper looked after the sleeping quarters of the nurses and the servants. The dietician supervised the preparation of the meals. A laundress was in charge of the laundry which was operated in connection with the sanitarium. An engineer superintended the plant supplying light, heat, and power. In the accounting scheme adopted the various functions performed by the organization were taken into consideration.

When a case was considered suitable for the hospital, the visiting physician or the supervising nurse made out an admission card, form I, which was filed alphabetically in a card tray. The

FORM I	
Name	
Address	
Admitted by	
Send bill for care and supplies to	
Date case admitted	
Date case discharged	
	O

admission cards formed the basis for making charges for care and supplies. Those patients who were sent to the sanitarium by the board of health and were unable to pay for their own

Accounting System for a Municipal Hospital

care and supplies had their bills paid out of funds for the care of dependent sick. The patients who could pay for their maintenance, or had relatives who would pay for them, were not a burden upon the city.

In conformity with an ordinance of the city, goods were usually purchased from the lowest bidder, and, if large quantities were required, bids were secured and contracts let. The goods were inspected when received, and put in the storehouse. The vendor's invoices which were received with goods were approved if the goods were found satisfactory. Once a month all the invoices which had been approved were listed and sent to the auditor for entry on the monthly draft.

There were four storerooms maintained at the hospital for groceries, meats, drugs, and linen. At the end of each month an inventory was taken of the contents of each storeroom, in order to furnish the necessary information for making an entry charging expense and crediting stores.

The revenue of the sanitarium was derived from the charges made for the care of patients and the sale of supplies to the inmates. Using the file of admission cards, form 1, duplicate bills were made out monthly for all patients. The original copy of the bill was mailed to the person or board assuming responsibility for payment. The duplicate copy was filed in a loose leaf binder, and was used as a posting medium to the accounts receivable ledger. The total charges for care and supplies were credited to the hospital revenue account on the general ledger.

The sanitarium was at a distance from the centre of the city, and it was frequently inconvenient for debtors to make payments directly at the hospital, so the city treasurer accepted money on account of the sanitarium. A record of the amounts and of the persons paying the same to the city treasurer for the hospital was kept and forwarded to the hospital office. Amounts paid to the hospital directly were recorded and deposited with the city treasurer. All amounts, whether collected at the hospital or by the city treasurer, were credited to the proper accounts receivable in both the general and the customers' ledger.

Frequently the hospital board abated charges made for the care of patients. When abatements were allowed, a record was set down in the minute book. This record was the basis for making an entry reversing the charge to accounts receivable.

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Pending the time when the new budget allowance became effective, it was the practice to spend one-twelfth of the preceding year's appropriation. When the year's allowance for the sanitarium was formally approved an entry was made on the books of the hospital setting up the appropriation allowed.

The journal entries required for the hospital books for the first month appeared as follows:

JOURNAL		Jan. 31, 1912
Dr. Stores	\$ 2,000	
Expense	1,000	
Equipment	500	
Cr. City treasurer		\$ 3,500
Per record of invoices approved and sent to the city auditor for payment.		
Dr. Expense	1,000	
Cr. Stores		1,000
Adjusting book figures to agree with the inventory.		
Dr. Accounts receivable	12,500	
Cr. Revenue		12,500
Per record of charges for care and supplies.		
Dr. City treasurer	11,500	
Cr. Accounts receivable		11,500
Per record of cash received on account of bills for care and supplies.		
Dr. Revenue	500	
Cr. Accounts receivable		500
Per record of abatement in the minute book of the hospital board.		
Dr. Budget allowance	4,000	
Cr. Appropriation		4,000
Amount granted for running the hospital for the year.		
Dr. Equipment	5,000	
Buildings	25,000	
Grounds	7,000	

Accounting System for a Municipal Hospital

Cr. Surplus	37,000
-------------------	--------

Cost of plant paid for from bond sale.

Dr. Revenue	12,000
-------------------	--------

Cr. Expense	2,000
Surplus	10,000

Entry closing revenue and expense account for the month.

Dr. Budget allowance	10,000
----------------------------	--------

Cr. Appropriation	10,000
-------------------------	--------

Net gain for the month transferred to the appropriation account.

After posting the foregoing entries, a balance sheet and surplus account taken from the hospital books appeared as follows:

BALANCE SHEET

PART 1

Cash in hands of city treasurer	\$ 8,000	Surplus	\$37,000
Accounts receivable	500	Net revenue for	
Stores inventory	1,000	period	10,000
Equipment	5,500		
Buildings	25,000		\$47,000
Grounds	700		
	\$47,000		\$47,000

PART 2

Budget allowance	\$14,000	Appropriation	\$ 4,000
		Net revenue for	
		period	10,000
			\$14,000

Surplus Account

Expense	\$ 2,000	Revenue	\$12,000
Surplus for period	10,000		
	\$12,000		\$12,000

A gain in operating reduces the amount which must be raised by the tax levy to carry on the sanitarium. A loss operates to increase budget allowances. If the time comes when the municipal hospital reaches a self-paying basis, no appropriation will be required to carry on the institution. It is obvious that the application of sound principles of accounting is required in order to determine whether a municipal enterprise is self-supporting or tax payers must bear a part of the expense for operation and maintenance.

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EDITORIAL

Railway Audits and the Interstate Commerce Commission

In a recently published report of an important railroad company the following paragraph occurs:

The system of accounts used by your company being that prescribed by the Inter-State Commerce Commission and subject in all details to its supervision and examination, the certification of the accounts and books of the company by certified public accountants has been discontinued.

We believe that the idea expressed in the foregoing excerpt is almost unique.

Since the formation of the Interstate Commerce Commission and during the entire course of its rapidly increasing control and supervision of railway affairs the practice of calling upon certified public accountants to conduct independent examinations of condition has grown steadily and rapidly. When the Interstate Commerce Commission was formed there was not, so far as can be ascertained, a railroad company in the United States which submitted to a regular investigation. Today there

are at least seven of the great systems and many smaller roads as well which are regularly audited and whose condition is certified by independent accountants.

Accountants recognize fully the value of the work which is done by the Interstate Commerce Commission and the great assistance in the standardization of railway accounting which has been rendered by that commission. It is probably well within the mark to say that without the operations of the commission railway accounting today would be far behind its present condition. The nearest approach to an actual standard system of accounting is that which has been laid down by the Interstate Commerce Commission for all common carriers engaged in interstate business; and yet the feeling of the Interstate Commerce Commission itself is not in accord with the opinion expressed by the company from whose report we have given an extract. On several occasions the commission has indicated its hearty approval of the principle of investigation by certified public accountants; and the work of the two branches of accounting, namely, that conducted by the commission's examiners and that conducted by the public accountants, has in no sense overlapped. The two have gone step by step and have been mutually beneficial and almost invariably corroborative.

Nearly every department of the government having the supervision of commercial or industrial activity has adopted the principle that independent analysis of accounts is one of the most vital factors in the development of modern business. We have yet to hear of a case in which a government department or bureau of a department has suggested that the work of the independent investigator could be or should be superseded by that of government agents. We are confident that the Interstate Commerce Commission has never for a moment entertained the idea that the work of its examiners had in any way rendered unnecessary the labors of certified public accountants.

Stockholders of railroad companies certainly will not agree with the opinion of the company whose report is quoted. The whole tendency of investment today is toward increased publicity and the most searching investigation of every detail of the business in which the money is invested. To say that independent investigation is essential to successful finance is so trite that it would seem superfluous to make the statement were it

not for the fact that such a report as that to which we have referred has been published with such evident disbelief in the modern business creed.

A New Department

Beginning with the current issue of *THE JOURNAL OF ACCOUNTANCY* we publish a special department dealing with the income tax law and its administration.

This department will be conducted by Mr. John B. Niven, C.P.A., whose qualifications for the work are well known to most of the members of the American Association of Public Accountants.

We have peculiar satisfaction in the permission to make this announcement at this time, for it is indubitable that the income tax law is to have a more far-reaching effect upon public accountants than upon any other profession or business in the country. Hundreds of men who have never seen the necessity for a correct system of accounting now find themselves compelled to prepare statements of income and expenditure; and the work in nine cases out of ten will fall upon the shoulders of the public accountants of the several states. The corporation tax law in its administration vastly increased the labors of public accountants but the work arising from the enactment of that law was far less than that which will result from the new income tax act. Accordingly anything having a bearing upon the interpretation of the law will be of vital interest to every accountant in the country and we are confident that in the income tax department of *THE JOURNAL OF ACCOUNTANCY* great assistance will be given to accountants and others.

We congratulate ourselves and our readers upon the opportunity to publish month by month articles dealing with the income tax law.

The editor of the income tax department will not attempt to interpret the law in specific cases. The department will include comments upon the treasury rulings which will appear from time to time, together with the full text of such rulings as apply to income tax matters.

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Beginning with January, 1914, another new department will appear in THE JOURNAL. This will be a "Students' Department." Arrangements are practically completed whereby one of the most prominent educators in the country will undertake to edit the department.

The plan is to include in the Students' Department elementary, intermediate and advanced work, so that there may be something for every student whether he be at the beginning or already on the high plane of public practice. A more detailed announcement of the department will appear in the December issue of THE JOURNAL OF ACCOUNTANCY.

Department of Practical Accounting

CONDUCTED BY JOHN WILDMAN, M.C.S., C.P.A.

PROBLEM No. 23 (DEMONSTRATION)

A receiver in bankruptcy having been appointed for W. B. Tileson, who has been engaged in a trading business, it is desired to know, approximately, the percentage which unsecured creditors will receive on their claims.

A balance sheet at June 30, 1912, is as follows:

<i>Assets</i>	<i>Liabilities and Capital</i>
Land\$ 25,000.00	Bond and mtge. on land & bldgs .....\$125,000.00
Buildings 175,000.00	Int. acc. on B/M 6,250.00
Machinery and tools ... 187,500.00	Taxes accrued 1,500.00
Auto trucks 15,000.00	Wages accrued 275.00
Furniture and fixts. 8,000.00	Accounts payable 175,725.00
Stock-Altair Wheel Co. . 45,000.00	Notes payable 200,000.00
N. Y. Central stock—200 shares at 131-1/8 26,225.00	Int. acc. on notes payable 12,000.00
Merchandise-inventory . 20,000.00	Reserve for depreciation:
Cash in hand 752.00	Buildings 35,000.00
Cash in bank 1,856.00	Machinery and tools .. 45,477.00
Accounts receivable 27,843.00	Auto trucks 12,500.00
Loan-Altair Wheel Co. . 90,000.00	Furniture and fixtures 4,000.00
Notes receivable 15,000.00	W. B. Tileson, capital .. 20,000.00
Accrued int. on notes receivable 251.00	
Unexpired insurance 300.00	
Total .....\$637,727.00	Total .....\$637,727.00

The following appraisals and estimates of values have been made: land, \$30,000; buildings, \$135,000; machinery and tools, \$85,000; auto trucks, \$2,000; furniture and fixtures, \$1,200; merchandise-inventory, \$12,000; accounts receivable, good, \$20,000; uncollectible, \$2,616; doubtful, \$5,277, but estimated to realize, \$3,000. Notes receivable and interest are secured by 150 shares of Louisville and Nashville stock, quoted at 156. The cash in hand contains an I. O. U. of W. B. Tileson in the amount of \$75. Of the New York Central stock, which is quoted at 150, 175 shares are pledged to secure notes payable

of \$20,000, with interest amounting to \$1,000. Accounts payable to the extent of \$5,362 are secured by a chattel mortgage on merchandise of \$3,000. The unexpired insurance figured on the short rate basis will yield \$85. Tleson's personal estate consists of vacant lots at Ampere, New Jersey, valued at \$1,000, and an insurance policy for \$5,000, the cash surrender value of which is \$3,000, while his personal and household debts amount to \$450. The balance sheet of the Altair Wheel Company shows assets, \$150,000; liabilities, \$100,000; capital stock outstanding, \$50,000. The assets have been appraised at \$80,000.

From the foregoing prepare:

- (a) Statement of affairs as of June 30, 1912.
- (b) Deficiency account.

SOLUTION TO PROBLEM NO. 23 (DEMONSTRATION)

In so far as the method is concerned this problem may be solved the same as the preceding. The content of the problem differs slightly in that no nominal accounts appear in the trial balance; nor is there anything in the facts which follow the trial balance which calls for the setting up of any nominal accounts.

The form of the working sheet remains the same. In general it should cause no trouble. In three or four particulars it will undoubtedly be found vexatious. For example when one attempts to supply the figure for estimated realization and liquidation opposite "stock-Altair Wheel Company" the question of its estimated value arises. Reference to the last few lines of the paragraph preceding the requirements shows it to be worthless. According to the balance sheet of the Altair Wheel Company the stock is worth par. When, however, it develops that the assets have been appraised at \$80,000 the aspect changes entirely. The extensive shrinkage in the assets not only wipes out the equity of the stockholders but leaves a deficit of \$20,000 which must be sustained by creditors. Hence it will be seen that the stock may not be depended upon to produce anything. In some states where stock is assessable for the benefit of creditors or in case the stock were not fully paid a further liability on the part of Tleson might even attach to such stock ownership.

The loan made to the Altair Wheel Company is carried on the

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books at \$90,000. If there are only \$80,000 worth of assets to meet \$100,000 worth of obligations it is obvious that, if the assets realize as much as is estimated and the liabilities remain the same, creditors will be obliged to suffer a loss of 20%. If this percentage is applied against the loan on Tleson's books it will be seen that he or the receiver will not realize more than \$72,000.

Concerning the I. O. U. of W. B. Tleson, some slight hesitation may be experienced. There is nothing said with regard to the value of the paper in question. It is not specifically mentioned as being worthless. The inference, taking all the facts into consideration, is that it should not be given a value. The cash is therefore decreased \$75.

Notes receivable and interest are secured by 150 shares of Louisville and Nashville stock quoted at 156. The notes and interest amount collectively to \$15,251. The one hundred and fifty shares of stock at one hundred and fifty-six are worth \$23,400. From these facts it may be concluded that the notes and interest will bring their face value. The mistake should not be made of taking up the stock in the estimated realization and liquidation column. It should be remembered that the stock in question is not the property of Tleson. It is merely deposited with him as security for certain notes. If perchance the notes were not paid and he or the receiver were to sell the stock at the market price of 156 the amount of the notes and interest, namely, \$15,251 would be deducted from the proceeds of \$23,400 and the balance of \$8,149 paid over to the owner of the stock.

The working sheet, concerning which there will probably be no other new questions, follows:

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**WORKING SHEET FOR STATEMENT OF AFFAIRS &
DEFICIENCY ACCOUNT**

DEBITS	Trial Balance	Estimated Realization & Liquidation	Increases	Decreases
Land	\$ 25,000.00	\$ 30,000.00	\$ 5,000.00	
Buildings	175,000.00	135,000.00		\$ 40,000.00
Machinery and tools	187,500.00	85,000.00		102,500.00
Auto trucks	15,000.00	2,000.00		13,000
Furniture & fixtures	8,000.00	1,200.00		6,800.00
Stock-Altair Wheel Co.	45,000.00	--		45,000.00
New York Central stock ..	26,225.00	30,000.00	3,775.00	
Merchandise-inventory	20,000.00	12,000.00		8,000.00
Cash in hand	752.00	677.00		75.00
Cash in bank	1,856.00	1,856.00		
Accounts receivable	27,843.00	23,000.00		4,843.00
Loan-Altair Wheel Co.	90,000.00	72,000.00		18,000.00
Notes receivable	15,000.00	15,000.00		
Acc. int. on notes rec.	251.00	251.00		
Unexpired insurance	300.00	85.00		215.00
TOTAL DEBITS	\$637,727.00			
Lots—Ampere, N. J.		1,000.00	1,000.00	
Personal insurance policy ..		3,000.00	3,000.00	
Total estimated assets ...		\$412,069.00		
Deficit		109,131.00		
Total		\$521,200.00		
CREDITS				
Bond & mortgage on land and buildings	\$125,000.00	125,000.00		
Int. acc. on B/M	6,250.00	6,250.00		
Taxes accrued	1,500.00	1,500.00		
Wages accrued	275.00	275.00		
Accounts payable	175,725.00	175,725.00		
Notes payable	200,000.00	200,000.00		
Interest acc. on N/P	12,000.00	12,000.00		
Res. depr. - bldgs.	35,000.00		35,000.00	
do do - mach. & tools ..	45,477.00		45,477.00	
do do - auto trucks ..	12,500.00		12,500.00	
do do - furn. & fixt. ..	4,000.00		4,000.00	
W. B. Tileson, capital	20,000.00		20,000.00	
TOTAL CREDITS ...	\$637,727.00			
Person & household debts ..		450.00		450.00
Total estimated liabilities		\$521,200.00		
			\$129,752.00	\$238,883.00
				\$109,131.00

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The statement of affairs presented below is about as complete as will ordinarily be found. It offers an unusually good opportunity to study "offsets," or "contras" as they are sometimes called. Take for example the New York Central stock. Two hundred shares were owned. One hundred and seventy-five shares were pledged to secure notes payable and interest. Accordingly the block of stock is divided into two parts; one of twenty-five shares and the other of one hundred and seventy-five. The unpledged portion is set up on the asset side, the book value and estimated to realize being one-eighth of the respective values applicable to two hundred shares.

The one hundred and seventy-five shares being pledged to secure notes payable and interest of \$21,000 are carried to the liabilities' side of the statement at the market price of 150 or \$26,250. Since this latter amount is greater than the amount of indebtedness the equity of \$5,250 is carried back to the asset side where it appears in the estimated to realize column.

W. B. TILSON
STATEMENT OF AFFAIRS as of JUNE 30, 1912

ASSETS	Book Value	Estimated to Realize	LIABILITIES	Offsets	Expected to Rank
Cash in hand and on deposit	\$ 2,608.00	\$ 2,533.00	Preferred claims: (deducted per contra)		
Securities:			Taxes	\$ 1,500.00	
Altair Wheel Co. stock	45,000.00	---	Wages	275.00	
New York Central stock:			Total Preferred claims ...	\$ 1,775.00	
Unpledged - 25 shares	3,278.13	3,750.00			
Equity in 175 shares pledged to secure notes receivable (per contra)	---	5,250.00	Creditors:		
Accounts receivable:			Fully secured:		
Good	20,000.00	20,000.00	Bond & mortgage payable & interest - (deducted - per contra)	\$131,250.00	
Doubtful	5,227.00	3,000.00			
Uncollectible	2,616.00	---	Notes payable and interest	\$ 21,000.00	
Merchandise	\$20,000.00		Secured by 175 shares N. Y. Central stock at 150	26,250.00	
Less - chattel mtge (ded. per contra)	3,000.00	9,000.00	Equity in securities (added per contra)	\$ 5,250.00	
Unexpired insurance	300.00	85.00	Partly secured:		
Notes receivable and interest	15,251.00	15,251.00	Accounts payable	\$ 5,362.00	
Loan-Altair Wheel Company	90,000.00	72,000.00	Less - chattel mortgage (deducted per contra)	3,000.00	\$ 2,362.00
Land	25,000.00	30,000.00	Unsecured:		
Buildings \$175,000 less reserve \$35,000	\$140,000.00		Notes payable and interest		191,000.00
Deduct B/M payable & interest (per contra)	131,250.00	3,750.00			
Equity	\$ 8,750.00				

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STATEMENT OF AFFAIRS AS OF JUNE 30, 1912 (continued)

Machinery & tools—\$187,500 less reserve \$45,477	\$142,023.00	85,000.00	Accounts payable (business creditors)	170,363.00
Auto trucks \$15,000 less reserve \$12,000	3,000.00	2,000.00	Accounts payable (personal creditors)	450.00
Furniture & fixtures \$8,000 less reserve \$4,000	4,000.00	1,200.00		
Personal property: Lots - Ampere, New Jersey	1,000.00	1,000.00		
Insurance policy—\$5,000 cash surrender value	3,000.00	3,000.00		
Total assets		\$256,819.00		
Deduct - Preferred claims (per contra)		1,775.00		
Balance of assets available for unsecured creditors, subject to the expenses of the receivership, being 70.03 plus % of their claims		\$255,044.00		
Deficit—per deficiency account		109,131.00		
Total		\$364,175.00	Total UNSECURED CREDITORS ..	\$364,175.00

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W. B. TILSON

DEFICIENCY ACCOUNT

Household debts	\$ 450.00	Capital	\$ 20,000.00
Estimated losses:		Personal estate:	
Buildings ...\$ 40,000		Land	1,000.00
Less-reserve . 35,000	5,000.00	Insurance policy	3,000.00
		Estimated increase in	
Mach. & tools \$102,500		value of land	5,000.00
Less-reserve . 45,477	57,023.00	Estimated increase in	
		value of securities ...	3,775.00
Auto trucks . \$ 13,000		Deficit	109,131.00
Less-reserve . 12,500	500.00		
Furn. & fixt. . \$ 6,800			
Less-reserve . 4,000	2,800.00		
Stock-Altair			
Wheel Co.	45,000.00		
Cash	75.00		
Merchandise	8,000.00		
Accounts receivable .	4,843.00		
Loan-Altair Wheel Co	18,000.00		
Unexpired insurance .	215.00		
	\$141,906.00		\$141,906.00

PROBLEM No. 23A (PRACTICE)

You are engaged by T. M. Jarvis, receiver in bankruptcy for H. M. Carley, to prepare a statement which will enable him to announce to the unsecured creditors the approximate liquidation dividend which they will receive.

A balance sheet at September 30, 1912, is as follows:

Assets		Liabilities & Capital	
Land	\$ 30,000.00	Bond and mortgage payable, land and buildings	\$150,000.00
Buildings	180,000.00	Interest acc. on B/M ...	2,250.00
Machinery and tools ...	65,000.00	Taxes accrued	3,000.00
Horses, wagons & harness	2,500.00	Wages accrued	7,825.00
Furniture and fixtures..	8,000.00	Accounts payable	186,783.15
Stock-Auto Wrench Co.	50,000.00	Notes payable	105,000.00
D. L. & W. stock-150 shares at 138 $\frac{3}{4}$	19,312.50	Int. acc. on notes payable	1,050.00
Merchandise-inventory .	23,782.95	Reserve for depreciation:	
Cash in hand	342.86	Buildings	43,826.00
Cash in bank	1,235.47	Machinery and tools ..	12,784.00
Accounts receivable ...	35,836.25	Horses, wagons & harness	250.00
Loan-Auto Wrench Co..	100,000.00	Furniture and fixtures.	1,275.00
Notes receivable	12,000.00	H. M. Carley, capital ...	14,334.38
Int. acc. on notes rec. ..	127.50		
Unexpired insurance ...	240.00		
Total	\$528,377.53	Total	\$528,377.53

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The following appraisals and estimates are made: Land, \$25,000; buildings, \$135,000; machinery and tools, \$40,000; horses, wagons and harness, \$750; furniture and fixtures, \$250; merchandise, \$15,000; accounts receivable, good, \$18,426.12; uncollectible, \$12,372.28; doubtful, \$5,037.85, but estimated to realize, \$2,000. Notes receivable and interest are secured by 100 shares of American Real Estate Company pfd. at 125. The cash in hand contains a counterfeit \$10 bill. Of the 150 shares of D. L. & W. which is quoted at 140¼, shares to the extent of 100 are pledged to secure \$10,132.50 of notes payable and interest. Accounts payable to the extent of \$4,875.23 are partially secured by a chattel mortgage on merchandise. The short rate for insurance is .0673. Carley's personal estate consists of improved property on Long Island valued at \$7,500 but subject to a mortgage of \$3,500, and household debts in the amount of \$325. The balance sheet of the Auto Wrench Company, in which Carley owns the majority of the stock, shows assets, \$250,000; liabilities, \$175,000; capital stock outstanding, \$75,000. The assets have been appraised at \$140,000.

From the foregoing prepare:

- (a) Statement of affairs.
- (b) Deficiency account.

In the deficiency account of Chauncey, Bennet & Cooper (Problem 22) as shown in the October number of *THE JOURNAL*, the amount due from the special partner and the amount of deficit were inadvertently combined. The account should appear as follows:

RECEIVER FOR CHAUNCEY, BENNET & COOPER

DEFICIENCY ACCOUNT AS OF JUNE 3, 1912

Adjustment of partners accounts	\$50,000.00	Capital	\$70,433.89
Loss on operations	27,796.96	Balance	7,363.07
	<u>\$77,796.96</u>		<u>\$77,796.96</u>
Balance	\$ 7,363.07	Estimated profit on con- tract	\$15,000.00
Estimated losses on reali- zation:		Due from special part- ner	6,949.24
Subcontractors	320.37	Deficit	19,519.16
Building material	3,160.73		
Equipment	30,624.23		
	<u>\$41,468.40</u>		<u>\$41,468.40</u>

Income Tax Department

EDITED BY JOHN B. NIVEN, C.P.A.

INCOME TAX LAW

The United States tariff law of 1913, being "an act to reduce tariff duties and to provide revenue for the government and for other purposes," was approved by the president on October 3d, 1913, and went into immediate effect. In addition to making changes of vast importance upon the tariff duties, it imposed an income tax, under the authority provided by the recent amendment to the constitution of the United States.

The income tax provisions of the law are contained in section 2, and, briefly stated, the intention of the act seems to be to impose a tax upon every citizen of the United States, whether residing at home or abroad, and upon every person residing in the United States, even although he may not be a citizen thereof, provided such person is in receipt of an income, arrived at as described in the act, of at least \$3,000—or, in the case of a married man, living with his wife, \$4,000—and upon all income which may be received as dividends (except possibly preferred dividends) upon the stock or from the net earnings of any corporation—(with certain exceptions)—even although such income, together with the person's other emoluments, is less than the minimum of \$3,000 or \$4,000.

The tax is a graded one, commencing with a "normal" tax of one per cent on all income in excess of \$3,000 (or \$4,000) and increasing by degrees through the operation of an "additional" tax to seven per cent (including the normal tax) upon that part of a person's net income which exceeds \$500,000. The following table shows the total of the normal plus additional tax:

<i>Total Income</i>	<i>Rate</i>	<i>Normal Tax</i>		<i>Rate</i>	<i>Additional Tax</i>		<i>Total Tax</i>
		<i>Amount</i>			<i>Amount</i>		
\$ 3,000	Nil			Nil			Nil
20,000	1% on \$ 17,000	\$ 170		Nil			\$ 170
50,000	1% on 47,000	470		1% on 30,000	\$ 300		770
75,000	1% on 72,000	720		2% on 25,000	500		800
				above sum of 800			
100,000	1% on 97,000	970		1% on 25,000	750		1,550
				above sum of 1,550			
250,000	1% on 247,000	2,470		4% on 150,000	6,000		7,550
				above sum of 7,550			
500,000	1% on 497,000	4,970		5% on 250,000	12,500		20,050

Over \$500,000 add to foregoing aggregate of \$25,020, 7% on any excess. Thus:

600,000	1% on 597,000	5,970		above sum of 20,050			
				6% on 100,000	6,000		26,050
							32,020

Income Tax Department

In addition to direct collection by the government, a method of collection new to United States practice—which is probably borrowed from Great Britain—known as “collection at the source” is introduced by the act. Although not specifically so stated in the act, collection at the source really comes under two heads:

- 1st. Taxes imposed upon the net incomes of corporations the dividends on which are afterwards exempt, in so far at least as the “normal” tax of 1% is concerned, when they reach the hands of individual shareholders.
- 2d. Taxes which are specifically directed under the act to be withheld in making payments to individuals and others, and which have to be accounted for by the party withholding the same, whether an individual or a corporation, to the government. These include the normal 1% upon all payments on account of interests, rents, salaries, wages, premiums, annuities, compensation, remuneration, emoluments, or other fixed determinable annual or periodical gains, entering into an income exceeding \$3,000 or in certain cases \$4,000 for any taxable year. The term “collection at source” is however hereafter confined to this second class.

The incomes subject to tax for the year 1913 are for the ten months from 1st March to 31st December only,—the exemption as to personal incomes of \$3,000 (or \$4,000 as the case may be) being for this period restricted to five-sixths of these amounts. The same period applies to the tax to be assessed against corporations, but the previous “corporation tax” of one per cent will be imposed upon the net income accruing in January and February, 1913, thus, subject to certain variations, practically completing the assessment for the whole year.

It is not intended in the present article to make any attempt to construe the law, which is in many respects extremely technical, having in view the fact that Treasury regulations relating to it have only been partially made public. Further regulations are now understood to be in preparation, and may be looked for before the next issue of this magazine.

It is believed, however, that many points requiring elucidation will arise from time to time and it is the intention in these columns to publish, as far as possible (1) the Treasury regulations and rulings, as they are issued; and (2) reports on such debatable points as may come before the courts or receive other public attention. In the early issues, the more important questions which arise will, of course, be dealt with under the head of Treasury rulings, but later on there may probably be a good many obscure or debatable points brought before the courts for decision.

In the meantime, a summary of the provisions of the act may be of interest, and these are now presented under three heads:

- 1st. Summary of provisions relating to individuals.
- 2d. Summary of provisions relating to corporations.
- 3d. Summary of provisions relating to collection at source.

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These summaries, however, are only intended to give a general indication of the provisions of the act, and reference must be made to the act itself for complete details.

1. SUMMARY OF PROVISIONS RELATING TO INDIVIDUALS

Incomes covered

Entire net income of all citizens of the United States, whether resident at home or abroad.

Entire net income of alien residents of the United States, or its possessions.

Entire net income from all property owned and of every business, trade, or profession carried on in the United States or its possessions by persons residing elsewhere.

Rate of Tax

Normal tax—1% per annum upon net income in excess of \$3,000 for individuals, and \$4,000 for husband and wife residing together, but provided that only one deduction of \$4,000 shall be made from the aggregate income of husband and wife when living together.

Additional tax—

An additional 1% upon the total net income in excess of \$20,000 and not exceeding \$50,000.

An additional 2% on the total net income in excess of \$50,000 and not exceeding \$75,000.

An additional 3% on the total net income in excess of \$75,000 and not exceeding \$100,000.

An additional 4% on the total net income in excess of \$100,000 and not exceeding \$250,000.

An additional 5% on the total net income in excess of \$250,000 and not exceeding \$500,000.

An additional 6% on the total net income in excess of \$500,000.

Net Income includes, subject to the deductions and exemptions which follow:

All gains, profits and income derived from salaries, wages or compensation for personal service, however derived or paid.

All profits from professions or vocations; from business, trade, commerce, or sales or dealings in property, real or personal.

All interests, rents and dividends.

And generally gains or profits derived from the transaction of any lawful business.

Also the income from, but not the value of, property acquired by gift, bequest, devise or descent.

But exclusive of any part of the proceeds of life insurance policies paid upon death or maturity of life insurance, endowment or annuity contracts.

For the purpose of the calculation of *additional tax*, the taxable income of any individual shall also include the share to which he would be entitled of the gains and profits, whether distributed or not, of all corporations or associations, however created or organized, formed or fraudulently availed of for evasion of the tax.

Deductions allowed

1. Necessary expenses of carrying on any business from which the income arises.

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Note: This does not include personal, living or family expenses.

2. Interest on indebtedness.
3. National, state, county, school and municipal taxes paid, "unless for local benefits."
4. Losses actually sustained during the year, incurred in trade, or arising from fires, storms or shipwreck and not compensated for by insurance or otherwise.
5. Debts ascertained to be worthless and actually charged off.
6. A reasonable allowance for the exhaustion or wear and tear of property *arising out of its use or employment in business*, not to exceed in the case of mines 5 per cent of the gross value at the time of the output.

Note: This will probably admit as in the case of corporations an allowance for depreciation and also an allowance for depletion of ores, etc. limited in the case of mines to 5 per cent as indicated.

And for the purposes of the normal tax only:

7. Amounts received as dividends upon the stock or from the net earnings of any corporation, joint stock company, etc., which is taxed upon its net income.
8. Any income, the tax upon which has been paid or withheld at its source.

Income exempt from taxation

Interest upon the obligations of a state or any political sub-division thereof.

Interest upon the obligations of the United States or its possessions.

The compensation of the present president of the United States and of certain other officers or employees of the United States and the compensation of all officers or employees of a state or political sub-division thereof except when such compensation is paid by the United States.

And

All incomes of the annual value of \$3,000, or in the case of a husband and wife living together \$4,000.

Note: This provision will not, however, entitle the beneficiary of an income arising from dividends upon a joint stock corporation to recover any tax which may have been paid in respect of his interest therein.

Fiscal Period

Tax to be computed on net income for calendar year ending December 31st—except that for the year 1913 it shall be computed only on that portion accruing from March 1st to December 31st, deducting, however, only 5/6ths of the specific exemption of \$3,000, or in the case of a husband and wife living together of \$4,000.

Returns shall be made—

- (a) With respect to all individual incomes of \$3,000 or over.
- (b) To the collector of internal revenue of the district in which each person resides or has his principal place of business (in the United States).
- (c) Upon forms to be prescribed by the secretary of the treasury.
- (d) On or before March 1st in each year.
- (e) By the following persons:
 1. Each taxable person of lawful age for himself or herself.
 2. Guardians, trustees, executors, administrators, agents, receivers, conservators, and all persons, or corporations or associations acting in any fiduciary capacity, in respect

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to the net income coming into their custody or control for the person or persons for whom they act.

3. All persons, firms, companies, copartnerships, corporations, etc., having the control of fixed or determinable annual or periodical gains, profits and income of another person subject to tax, which persons, firms, etc., shall report fully thereon, specifying the amount of such income under their control and the amount of tax retained therefrom under those sections of the act dealing with "collection at the source."

Exceptions as to Returns

There shall be no return on incomes of less than \$3,000.

It shall not be necessary to include in any return the income derived from dividends on the capital stock of any corporation taxed upon its net income, where the person making the return or for whom the return is made, is only liable for the "normal" tax.

Date of Assessment

On or before June 1st in each year.

Neglected, Fraudulent or False Returns

Penalties—see below.

In case of refusal or neglect to make a return, or in cases of false or fraudulent returns, the commissioner of internal revenue shall on the discovery thereof, at any time within three years after said return is due, make a return upon information before him.

Date of payment of Tax

Regular assessments, on or before June 30th annually.

Delayed assessments, on notification thereof by the commissioner.

Penalties

For failure to make return:

Not less than \$20 and not exceeding \$1,000.

For a false or fraudulent return, made with intent to defeat or evade taxation:

Person making such shall be guilty of a misdemeanor and shall be subject to a fine not exceeding \$2,000 and costs, or imprisonment not exceeding one year—or both.

For non-payment of tax:

On sums due and unpaid at June 30th in any year and for ten days after notice and demand thereof by the collector, 5% on the amount unpaid and interest at 1% per month from the time the tax became due, except in the cases of the estates of insane, deceased or insolvent persons.

2. SUMMARY OF PROVISIONS RELATING TO CORPORATIONS

Rate of Tax

One per cent per annum upon entire net income.

Corporations subject to Tax

Every corporation, joint-stock company, association and insurance company, not including partnerships;

except, various organizations, mutual in character or organized for promotion of social welfare and not for profit;

except also, that income accruing to any political sub-division of U. S. A. from any public utility or governmental function is not subject to tax.

Income Tax Department

Net Income—how determined

By deducting from gross income from all sources:

1. Ordinary and necessary expenses of maintenance and operation.
Rentals.
2. Losses actually sustained.
Depreciation.
Depletion of ores of mines, not exceeding 5 per cent of gross value of output at mine.
3. Interest accrued and paid within the year on an amount of indebtedness not exceeding one-half of sum of interest-bearing indebtedness, plus capital stock outstanding at end of year, or if no capital stock, on indebtedness not exceeding capital employed at close of year.
Total interest on indebtedness wholly secured by collateral the subject of sale in ordinary business of corporation.
Interest on deposits or certificates of indebtedness of bank, loan or trust company.
4. Taxes, United States.
Taxes, foreign.

Deduction not allowed

Tax paid by corporation on interest, guaranteed free from taxation, on bonds or indebtedness.

Fiscal period

Tax to be computed on net income for calendar year ending December 31st,—except that:

Corporations may designate last day of any month as close of fiscal year and compute tax, as provided, for year ending on day designated in year preceding date of assessment. Notice to be given to collector thirty days prior to date for filing.

For year 1913, tax to be on income from March 1st to December 31st, to be ascertained by taking five-sixths of net income for calendar year.

Date of Filing Returns

Corporations reporting for calendar year: March 1st, 1914, and annually thereafter.

Corporations reporting for fiscal year, sixty days after close of said year.

Officers making Returns, and to whom

President, vice-president, or other principal officer, and treasurer or assistant treasurer, under oath or affirmation, to collector of internal revenue for district in which principal place of business is located.

Details to be reported

1. Total amount of paid up capital stock outstanding, or if no capital stock, capital employed in business, at close of year.
2. Total amount of bonded and other indebtedness at close of year.
3. Gross amount of income from all sources.
4. Deductions, in detail, as set forth above under "net income—how determined."

Date of Assessment

June 1st in each year.

Date of Payment of Tax

June 30th, in case of corporations reporting for calendar year.

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One hundred and twenty days after date of filing, in case of corporations reporting for fiscal year.

If unpaid after ten days' notice and demand by collector, five per cent to be added, and one per cent per month from date due.

If no return, or false return is made, collector may make return within three years and tax shall be paid immediately on assessment.

Inspection of Returns

Returns become public records but open to inspection only on order of president.

Returns open to officers of any state imposing general income tax.

Penalty

For refusal or neglect to file, or rendering false or fraudulent return, not exceeding \$10,000.

Tax for January and February, 1913

Special excise tax of one per cent upon entire net income levied for months of January and February, 1913, ascertained as above provided, computed on one-sixth of entire net income for year.

One return and assessment to be made for whole year 1913.

Special Provisions: Insurance Companies

Deductions from gross income include under item (2):

Net addition, if any, required by law to be made to reserve funds. Sums other than dividends paid within year on policy and annuity contracts.

Special provisions: Mutual Fire Insurance Companies

Shall not return as income any portion of premium deposits returned to policyholders.

Shall return as taxable income all income from other sources, plus portions of premium deposits retained for purposes other than payment of losses, expenses and reinsurance reserves.

Special provisions: Mutual Marine Insurance Companies

Shall include in gross income, gross premiums collected, less amounts paid for reinsurance.

Shall include in deductions repayments to policyholders with interest paid thereon.

Special provisions: Life Insurance Companies

Shall not include as income portions of premiums paid back, credited, or applied as abatement of premiums.

Special provisions: Assessment Insurance Companies

Deposits with state or territorial officers, pursuant to law, as additions to guarantee or reserve funds to be treated as payments to reserve funds.

Foreign Corporations

Tax to be computed on net income from business transacted and capital invested within United States, arrived at as above set forth, *i. e.*

Gross income, on business transacted and capital invested within United States.

Deductions in respect of same.

In case of interest, deduction shall be that proportion of amount arrived at, as above provided, which gross income in United States is of total gross income within and without United States.

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In case of taxes, deduction allowed does not include foreign taxes, but same must be stated separately in report under item (4) of deductions from gross income.

Return to be filed in place where principal business is located in United States.

3. SUMMARY OF PROVISIONS RELATING TO "COLLECTION AT SOURCE"

All persons, firms, corporations, etc., including lessees or mortgagors of real or personal property, trustees acting in any trust capacity, executors, administrators, etc., and all employers, and officers and employees of the United States having control, receipt, custody, disposal, or payment of interests, rents, salaries, wages, premiums, annuities, compensations, remuneration or other fixed or determinable annual gains profits and income of another person exceeding \$3,000 for any taxable year other than dividends on capital stock or from the net earnings of corporations, etc., subject to like tax, are required to deduct and withhold from the payment of such income a sum sufficient to pay the normal tax thereon, and to account therefor to the United States Official authorized to receive the same.

Provided however that the amount of the normal tax shall in certain cases be withheld even although the total net income of the beneficiary of such income does not exceed \$3,000—these cases being as follows:

Income derived from interest upon bonds, mortgages or deeds of trust or other similar obligations of joint stock companies or associations and insurance companies whether payable annually or at shorter or longer periods.

Income derived from coupons, cheques, or bills of exchange for or in payment of any dividends upon the stock or interest upon the obligations of foreign corporations, etc., engaged in business in foreign countries.

Benefit of Exemption

Where the income tax of any person is paid at the source the benefit of the exemption of \$3,000 (or \$4,000) provided under the Act shall not be allowed unless such person shall not less than 30 days prior to the day on which the return of his income is due, file with the person or concern required to withhold and pay the tax a signed notice claiming the benefit of such exemption.

When a taxable person's tax is paid at the source, if he desires any deduction for losses, expenses of business, etc., he may file a claim together with a return of any other income upon which tax is not withheld at the source, either with the collector of the district or with the corporation withholding the tax, but to make such claim effective it must be filed not less than 30 days prior to the day on which the return of his income is due.

For further details relative to the operation of the act in so far as it affects the deduction of income tax at the source—see regulations issued by the Treasury Department on October 25th, and 31st, 1913—reprinted elsewhere in this issue.

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TREASURY RULINGS

COLLECTION AT SOURCE

(T D 1887, October 25th, 1913)

Regulations regarding the deduction of the income tax at the source on interest maturing on bonds, notes, and other similar obligations of corporations, joint stock companies or associations, and insurance companies, under the provision of section 2 of the act of Oct. 3, 1913:

TAX TO BE DEDUCTED AT SOURCE

Under the income tax law, enacted Oct. 3, 1913, a tax of 1 per cent, designated in the law as the "normal tax," shall be deducted at "the source," beginning Nov. 1, 1913, from all income accruing and payable to (A) every citizen of the United States, whether residing at home or abroad, and to (B) every person residing in the United States, though not a citizen thereof, which may be derived from interest upon bonds and mortgages, or deeds of trust, or other similar obligations, including equipment trust agreements and receivers' certificates of corporations, joint stock companies or associations, and insurance companies, although such interest does not amount to \$3,000; excepting only the interest upon the obligations of the United States or its possessions, or a State or any political sub-division thereof. The term "debtor," as hereinafter used, shall be construed to cover all corporations, joint stock companies or associations, and insurance companies.

WHEN TAX SHALL BE WITHHELD BY DEBTOR

For the purpose of collecting this tax on all coupons and registered interest originating or payable in the United States, the source shall be the debtor, (or its paying agent in the United States), which shall deduct the tax when same is to be withheld; and no other bank, trust company, banking firm, or individual taking coupons or interest orders for collection, or otherwise, shall withhold the tax thereon; provided that all such coupons, or orders for registered interest, are accompanied by certificates of ownership signed by the owners of the bonds upon which the interest matured. These certificates shall be in the forms hereinafter prescribed, and a separate certificate shall be made out by each owner of bonds for the coupons or interest orders for each separate issue of bonds or obligations of each debtor.

WHEN TAX SHALL BE WITHHELD BY FIRST COLLECTING AGENCY

If, however, the coupons or interest orders are not accompanied by certificates as prescribed above, the first bank, trust company, banking firm, or individual or collecting agency receiving the coupons or interest orders

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for collection, or otherwise, shall deduct and withhold the tax and shall attach to such coupons or interest orders its own certificate, giving the name and address of the owner of or the person presenting such coupons or interest orders if the owner is not known, with a description of the coupons or interest orders also setting forth the fact that they are withholding the tax upon them; whereupon the debtor shall not again withhold the tax on said coupons or interest orders but in lieu thereof shall deliver to the government the certificates of such bank, trust company, etc., which is withholding such tax money.

Any corporation, collecting agency, or person first receiving from the owner any interest coupons or orders for the collection of registered interest, and to whom the certificates above provided for are delivered should require the persons tendering such coupons or orders for registered interest to satisfactorily establish their identity.

PAYMENT OF REGISTERED INTEREST BY DEBTORS

A debtor whose bonds may be registered, both as to principal and interest, shall deduct the normal tax of one per cent from the accruing interest on all bonds before sending out checks for said interest to registered owners or before paying such interest upon interest orders signed by the registered holders of said bonds until there shall be filed with said debtor or its fiscal agent (and not later than thirty (30) days prior to March 1) through whom said interest is customarily paid, the proper certificates claiming exemption from liability for said tax as herein provided, executed as follows:

By a citizen or resident of the United States, the bona fide owner of the registered obligations, who may claim exemption under paragraph C, section 2, of the federal income tax law; or

By corporations, joint stock companies, associations, or insurance companies, organized in the United States, or organizations, associations, fraternities, etc., which are either taxable or exempt from taxation, as provided in paragraph G, sub-division A, of the act; or

By a bona fide resident and citizen of a foreign country, claiming exemption as such.

DESIGNATION OF FISCAL AGENCIES

The "debtor" may appoint paying or fiscal agents to act for it in matters pertaining to the collection of this tax upon filing with the collector of internal revenue for its district a proper notice of the appointment of such agent or agents.

CERTIFICATES CLAIMING EXEMPTION

If the owners of the bonds are individuals who are citizens or residents of the United States, the aforesaid certificates shall accompany the coupons, or with respect to the interest on registered bonds, shall be filed with payer of said interest; and such certificates shall describe

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the bonds and show the amount of coupons attached or the amount of interest due such owners on registered bonds, and the full name and address of the owners; and shall also state whether they claim or do not then claim exemption from taxation at the source provided for by paragraph C of section 2 of the federal income tax law, (\$3,000), and under certain conditions (\$4,000) as to the income represented by such coupons or interest.

The certificate shall also show the amount, if any, of exemption claimed and the date of signature.

The form of certificate to be used for this purpose shall be substantially as follows:

(FORM 1000)

Form of certificate to be presented with coupons or interest orders stating whether or not exemption is claimed, under form C, section 2, of the federal income tax law.

I do solemnly declare that I, —, a citizen or resident of the United States and residing at —, am the owner of \$— bonds of the denomination of \$— each, Nos.—, of the — (give name of debtor), known as (describe the particular issue of bonds) bonds, from which were detached the accompanying coupons, due —, 191—, amounting to \$—, or upon which there matured —, 191—, \$— of registered interest.

I (do) (do not) now claim with respect to the income represented by said interest the benefit of a deduction of \$— allowed under paragraph C, section 2, of the federal income tax law.

Date—, 191—.

Name.....
Address.....

Whenever interest coupons, accompanied by a certificate of an individual who is a citizen or resident of the United States, as aforesaid, are presented to a debtor or its fiscal agent for payment, or whenever interest is payable to such individual on a bond registered as to both principal and interest, the debtor or its fiscal agents shall deduct and withhold the amount of the normal tax, except to the extent that exemption is claimed in the certificate of ownership in the form herein prescribed.

Where the interest to be paid is registered, the same form of certificate shall be used where exemptions are claimed, except that it shall be filed with the debtor at least five (5) days before the due date of such interest.

BY WHOM SIGNED

These certificates must be signed by the claimants with their full names, and contain their post office and street address, also the date when signed.

Duly authorized agents, trustees acting in a trust capacity, etc., may sign such certificates for the persons for whom they act.

ORGANIZATIONS WHOSE INTEREST COUPONS ARE NOT TAXED AT SOURCE

If the owners of the bonds are corporations, joint stock companies,

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associations, or insurance companies organized in the United States, no matter how created or organized, or organizations, associations, fraternities, etc., which are either taxable or exempt from taxation as provided in paragraph G, sub-division A, of the act, the debtor is not required to withhold or deduct the tax upon income derived from interest on such bonds, provided coupons or orders for interest from such bonds shall be accompanied by a certificate of the owners thereof certifying to such ownership, which certificates shall be filed with the debtor when such coupons or interest orders are presented for payment.

Such certificates shall be substantially in the following form:

(FORM 1001)

Certificate to be furnished by organizations not subject to tax on interest at source.

I, (Give name), the (Give official position) of the (Name of organization) a.... (Character of Organization) of..... (State) located at..... (Post-Office address) do solemnly declare that said..... (Give name of organization) is the owner of \$.... bonds of the denomination of \$.... each..... of the (Give name of debtor) known as..... (Describe particular issue of bonds) bonds, from which were detached the accompanying coupons, due.... 191.., amounting to \$...., or upon which there matured.... 191.. \$.... of registered interest, and that under the provisions of the income-tax law of October 3, 1913, said interest is exempt from the payment of taxes collectible at the source, which exemption is hereby claimed.

Name (Official position)
Of (Name of Organization)
Address (Post Office)

Date....191..

This certificate must be signed by the full name of the organization, stating its place of business, and by the president, secretary, or some other principal officer of the said corporation, or organization duly authorized to sign same, together with the date of execution.

HOW COLLECTED WHEN NOT ACCOMPANIED BY THE CERTIFICATE OF OWNER

Where coupons or interest orders are not accompanied by the ownership certificates the form to be executed by the first bank, trust company, banking firm, individual, or collection agency receiving the same for collection or otherwise, which must accompany the coupons or interest orders, shall be substantially as follows:

(FORM 1002)

Form of certificate to be presented with coupons or interest orders when not accompanied by certificate of owners.

I,, (Name) the..... (Official position) of the..... (Bank or collecting agency) of.... (address) do solemnly declare that said (Collecting agency) has (or have) purchased or accepted for collection the accompanying coupons or interest orders amounting to \$....,

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and which represent interest matured on \$.... of bonds of the..... (Name of debtor) and that..... (Collecting agency) received said coupons or orders for registered interest from.... (Name of party from whom received) of.... (Address of said party), and that no certificate of ownership accompanied said coupons or interest orders, and.... (Collecting agency) hereby acknowledges responsibility of withholding therefrom the normal income tax of 1 per cent, in accordance with the regulations of the Treasury Department.

Name(Collecting agency)

By(Signature of officer duly authorized to sign, and his official position)

Address(Give full address)

Date.... 191..

This certificate shall be dated and signed by, and shall state the address of the corporation, organization, collecting agency, or person withholding the tax, with full name and address.

FINAL DISPOSITION OF CERTIFICATES

The debtor or paying agents shall deliver all certificates with the list of names and addresses of those for whom the tax has been withheld, showing amounts, as required by law, to the collector of internal revenue for their district on or before the 20th day of the month succeeding that in which said certificates were received by them.

INTEREST DUE BEFORE MARCH 1, 1913

The tax shall not be withheld on coupons or registered interest maturing and payable before March 1, 1913, although presented for payment at a later date.

LICENSE REQUIRED FOR COLLECTION OF INCOME FROM FOREIGN COUNTRIES

All persons, firms, or corporations undertaking for accommodation or profit (this includes handling either by way of purchase or collection) the collection of coupons, cheques, bills of exchange, etc., for or in payment of interest upon bonds issued in foreign countries and upon foreign mortgages, or like obligations, and for any dividends upon stock or interest upon obligations of foreign corporations, associations or insurance companies engaged in business in foreign countries, are required by law to obtain a license from the commissioner of internal revenue and may be required to give bond in such amount and under such conditions as the commissioner of internal revenue may prescribe.

BY WHOM TAX IS WITHHELD

The licensed person, firm, or corporation first receiving any such foreign items, for collection or otherwise, shall withhold therefrom the normal tax of 1 per cent and will be held responsible therefor. He (the licensee) shall thereupon indorse or stamp thereon the words "Income tax withheld by ——" (giving his or their name, address, and date) which

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shall be sufficient evidence to relieve subsequent holders or purchasers from the duty of also withholding the income tax.

If the size or nature of such coupons, cheques, etc., makes it impracticable to make said indorsement as above, a statement identifying the item on which tax is withheld and bearing said indorsement may be attached thereto to the same effect as if the indorsement was made directly thereon.

LIST OF TAX COLLECTIONS ON FOREIGN ITEMS

Such licensee shall obtain the names and addresses of the persons from whom such items are received and shall prepare a list of same and file it with the collector of internal revenue for his district not later than the 20th of the month next succeeding the receipt of such items. The list shall be dated and shall contain the names and addresses of the taxable persons and the amount of tax deducted and from what source collected.

CERTIFICATES TO SECURE TAX EXEMPTION OF FOREIGN ITEMS

In the event such coupons, cheques, or bills of exchange above mentioned are presented for collection by an individual claiming the benefit of the deductions allowable under paragraph C, section 2, of the federal income tax law, such individual shall be permitted to avail himself of the deduction claimed, upon signing on the form heretofore prescribed for coupons payable in the United States, and no tax shall be deducted for the amount of the exemption so claimed, or if such items are presented by corporations, joint stock companies, or associations and insurance companies organized in the United States, the form of certificate heretofore prescribed for such organization shall be used, and in such instances no tax shall be deducted.

In both instances, the licensee first receiving such items shall retain such certificates for delivery with the lists aforesaid to the collector of internal revenue for his district not later than the 20th of the month next succeeding that in which said items were received, and with respect to said coupons, cheques or bills of exchange, said licensee shall attach thereto (identifying the items) or indorse, or stamp thereon the words "Income tax exemption claimed through—(giving name and address of licensee)," which shall be sufficient evidence to relieve subsequent holders or purchasers from the duty of also withholding the tax thereon.

The provisions for collection of the tax on foreign obligations set forth in this section of the regulations includes the interest upon all foreign bonds, even though the coupons may be at the option of the holder, payable in the United States, as well as in some foreign country.

PENALTY FOR OMISSION TO OBTAIN LICENSE

All persons licensed shall keep their records in such manner as to

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show from whom every such item has been received, and such records shall be open at all times to the inspection of internal revenue officers.

PENALTY FOR OMISSION TO OBTAIN LICENCE

Failure to obtain license or to comply with regulations is punishable by a fine not exceeding \$5,000 or imprisonment not exceeding one year, or both, in the discretion of the court. Such licences shall continue in force until revoked.

Application for such licences should be made to the collectors of internal revenue for the district in which they are engaged in business and may be issued without cost to such persons as the commissioner may approve, upon their filing with the collector the bond herein provided for.

All persons in making application to the collector of internal revenue for such licences shall register their names and addresses and state the nature of the business in which they are engaged. Such application for the licence, accompanied by a proper surety bond, when both have been approved by the collector will be considered a sufficient compliance with the law to enable the persons making application to do business until Feb. 1, 1914, without incurring the penalties provided by law for failure to procure the required licence.

PENALTY FOR FALSE STATEMENTS

If any person, for the purpose of obtaining any allowance or reduction by virtue of a claim for exemption, either for himself or for any other, knowingly makes a false statement or false or fraudulent representation, he is liable under the act to severe penalties.

PARTNERSHIPS

Where coupons or interest orders, presented for payment, represent the interest on bonds, or other similar obligations, owned by a partnership, they shall be accompanied by a certificate of ownership, which shall be signed either in the firm's name by one member of the firm or by each individual member of the partnership, and the normal tax shall be withheld by the debtor with respect to the income represented by said interest.

The following certificate should be used when coupons or interest orders are presented by citizens or residents of the United States, for collection of interest on bonds, or other similar obligations, owned by the partnerships of which they are members.

Said certificate of ownership shall be substantially the following form:

(FORM 1003)

Form of certificate to be filled out and signed by members of partnerships.

I, , a member of the firm or partnership of of and resid-

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ing at.... (give full address) do solemnly declare that the said partnership is the owner of \$.... bonds of the denomination of \$.... each, Nos.... of the.... (give name of debtor) known as.... (describe the particular issue of bonds) bonds, from which were detached the accompanying interest coupons, due.... 191.., amounting to \$...., or upon which there matured 191.. \$.... of registered interest and that the name and address of said firm or partnership, and the names of the individual members thereof, and their places of residence, are as follows: Names of partners
.... Address:

Name of partner signing
Of firm of
Address:

Date.... 191..

Any member of a partnership, who is entitled to a deduction (under Paragraph C, Section II, of the Income Tax Law) of his pro rata share of the tax which may be withheld at the source on interest on bonds owned by his co-partnership as above, may claim such deduction or allowance when he shall make his individual income return tax for the year in which said deduction at the source was made.

Non Resident Foreigners Owning Interest Bearing Bonds Not Subject to Taxation on Income from Such Bonds if Proper Certificate Furnished

This tax will not be deducted from the income which may be derived from interest on bonds, mortgages, equipment trusts, receivers' certificates, or other similar obligations of which the bona fide owners are citizens of foreign countries residing in foreign countries; *Provided* that, such interest coupons or, in the case of wholly registered bonds, the orders for the payment of such interest, shall be accompanied by duly certified certificates hereinafter provided for to cover the cases of foreign and non-resident owners of bonds and other securities.

Unless such proof of foreign ownership is duly furnished, the normal tax of 1% shall be deducted as herein provided.

Such certificate shall be in substantially the following form:

(FORM 1004)

Form of certificate to be presented with coupons or interest orders detached from bonds or other obligations owned by those who are both citizens or subjects and residents of foreign countries.

I do solemnly declare that I am not a citizen or resident of the United States of America, but a subject (or citizen) of.... and that I am the owner of \$.... bonds of the denomination of \$.... each, Nos.... of the.... (give name of debtor corporation) known as.... (describe the particular issue of bonds), from which were detached the accompanying coupons, due.... 191.., amounting to \$...., or upon which there matured 191.., \$.... of registered interest, and that being a non-resident foreigner, I am exempt from the income tax imposed on such interest by the United States Government under the law enacted Oct. 3, 1913, and that no citizen of the United States, wherever residing, or foreigner

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residing in the United States, or any of its possessions, has any interest in said bonds, coupons or interest.

Signature of owner of bonds(give full name)
Date Address(give full post office address)

TEMPORARY PROVISION

In view of the fact that the time required for the interpretation of the law and preparation and issuance of these regulations brings the date so near Nov. 1 and that many coupons payable upon that date are already in transit without the prescribed certificates attached, with a desire to cause as small an amount of inconvenience as possible to bondholders and general business as may be compatible with the provisions of the law and of these regulations, the following temporary provision is made:

On Nov. 1, 1913, and for fifteen days thereafter, coupons presented to a debtor need not be accompanied by certificates in any of the forms hereinbefore described, provided that such coupons are accompanied by a certificate substantially in the following form:

(FORM 1005)

Form of temporary certificates which may be used only prior to Nov. 16, 1913.

I (we) hereby certify that I am (we are) lawfully entitled to present for payment the accompanying coupons or interest orders amounting to \$.... (giving amount), representing interest matured on the following bonds (giving name of debtor and designating the description, style, and numbers of the bonds); that said coupons or interest orders came into my (our) possession unaccompanied by a certificate of ownership of said bonds, in any of the forms required by the regulations of the United States Treasury Department, and that the name and address of the owner of such bonds are as follows:

(Give name and address of owner; if impossible to do this, so state).

Name of person, firm or corporation presenting coupons

Address

Date

On or before Feb. 1, 1914, certificates of the ownership of any of the bonds upon which was collected the interest referred to in such temporary certificates in any of the forms above set forth may be delivered to the debtor, and said debtor may thereupon return any sum withheld to which the owner of such bonds may be entitled under the law and regulations upon the facts disclosed by such ownership certificates. Any temporary certificates relating to bonds for which certificates of ownership shall not have been substituted with the debtor shall, on or before March 1, 1914, be delivered to the collector of internal revenue.

All certificates shall be 8 inches wide and $3\frac{1}{2}$ inches from top to bottom, and printed on paper corresponding in weight and texture to glazed bond paper 17 by 28, about 26 pounds to the ream of 500 sheets, or white writing paper 21 by 32, about 32 pounds to the ream of 500 sheets, and the person or corporation first receiving coupons or interest orders for collection shall write or stamp his or its name and address and date on the back of said certificates.

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(PART 2)

(T. D. 1890 Oct. 31, 1913)

Regulations (Part 2) regarding the deduction of the income tax at the source on income other than interest maturing on bonds, notes, and other similar obligations of corporations, joint-stock companies or associations, and insurance companies under the provisions of section 2 of the federal income-tax law of October 3, 1913.

The "source" in these regulations shall be construed as referring to the place where the income originates.

BY WHOM THE NORMAL TAX SHALL BE DEDUCTED AND WITHHELD

All persons, firms, etc., mentioned in paragraph E of this law, hereinafter referred to either as "debtors" or "withholding agents," namely:

Copartnerships, companies, corporations, joint-stock companies, or associations, insurance companies, in whatever capacity acting, including lessees, mortgagors of real or personal property, trustees acting in any trust capacity, executors, administrators, agents, receivers, conservators, employers and all officers and employees of the United States having the control, receipt, custody, disposal, or payment of interest (except income derived from interest upon bonds and mortgages or deeds of trust, or other similar obligations of corporations upon which the normal tax of 1 per cent has otherwise been withheld at the source, as provided by regulations), rents, salaries, wages, royalties, taxable annuities, emoluments, or other fixed or determinable gains, profits, and income of another person, exceeding \$3,000 for any taxable year, except as hereinafter provided, shall deduct and withhold from such annual gains, profits, and income such sum as will be sufficient to pay the normal tax of 1 per cent imposed thereon by section 2 of this act, and shall make lawful return and pay the taxes so withheld to the collector of internal revenue for the district in which said withholding agent resides or has his, her, or its principal place of business.

The normal tax of 1 per cent shall be thus withheld from all income derived from fixed annual periodical rent of realty or personalty, interest (except as herein otherwise provided), salaries, royalties, taxable annuities, and other fixed annual periodical income exceeding \$3,000.

ITEMS UPON WHICH TAX IS NOT TO BE WITHHELD AT THE SOURCE

(1) Dividends on capital stock, or from the net earnings of corporations and joint-stock companies or associations and insurance companies

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subject to like tax, when said withholding agents are required to make and render a return in behalf of another, as provided herein, to the collector of his, her, or its district.

(2) Proceeds of life insurance policies paid upon the death of the person insured, or payments made by or credited to the insured, on life insurance, endowment, or annuity contracts, upon the return thereof to the insured at the maturity of the term mentioned in the contract, or upon the surrender of contract—all of which shall not be included as income under this law—but this shall not be construed to exempt said insurance companies from withholding and paying the normal tax of 1 per cent on interest income paid by insurance companies to beneficiaries of policies when said interest exceeds \$3,000.

(3) Income of an individual which is *not* fixed or certain, and *not* payable at stated periods, or is indefinite or irregular as to amount or time of accrual, shall not be withheld at the source, but shall be listed in the annual return, and the tax shall be paid thereon by the individual.

Income derived from the following professions and vocations come under this head: Farmers, merchants, agents compensated on the commission basis, lawyers, doctors, authors, inventors, and other professional persons whose income is irregular and indefinite.

Such persons shall make personal return of all their income, provided their total income from all sources exceeds \$3,000. For example: When a lawyer receives a retainer of \$5,000 as a special fee, a deduction therefrom shall not be made by the payer, but when a lawyer receives a retainer of \$5,000 *per annum*, and the exemption claimed is \$3,000, \$2,000 of such income would be taxed and the tax retained at the source, or if his exemption claimed should be \$4,000, \$1,000 of such income would be taxed and the tax thereon withheld at the source.

(4) The value of property acquired by gift, bequest, devise, or descent.

(5) Interest upon the obligations of a state or any political sub-division thereof, and upon the obligations of the United States or its possessions; also the compensation of the present president of the United States during the term for which he has been elected, and of the judges of the Supreme and inferior courts of the United States now in office, and the compensation of all officers and employees of a state or any political sub-division thereof paid by a state or any political sub-division thereof, except when such compensation is paid by the United States Government.

This exempts from the income tax all salaries paid to an individual by a state or any political sub-division thereof, including the salaries of state, county, and municipal officers, the salaries of public-school teachers, and special compensation paid by states or sub-divisions thereof for professional services, whether in the shape of salaries or special fees.

NORMAL TAX ON THE SAME INCOME IS TO BE WITHHELD BUT ONCE

The normal tax of 1 per cent shall be deducted and withheld *at the source*, and payment made to the collector of internal revenue as

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provided in the law, by the debtor or his, her, or its duly appointed agent authorized to make such deduction and payment.

No other person, firm, or organization, in whatever capacity acting, having the receipt, custody, or disposal of any income, as herein provided, shall be required to again deduct and withhold the normal tax of 1 per cent thereon: *Provided*, That any person, firm, or organization in whatever capacity acting, other than the debtor who has withheld said tax, shall file with the collector of internal revenue for his, her, or its district, a certificate in substantially the following form:

(FORM 1006)

Form of certificate to be filed by persons, firms, or organizations required to withhold and pay said tax *other than* the debtor at the source.

To: (Name of collector of internal revenue), *Collector of Internal Revenue*,

..... (Give address and designate district)
I, (Name), (Official title, if any) of the (Person, firm, or organization), (Capacity in which acting) of (Postoffice address), do solemnly declare that I (we) received of (Name from whom received) \$...., same being income derived from (State source, whether rents, salary, or other sources) belonging to (Give name of person to whom income is due), (Address) and that the tax thereon amounting to \$...., to which said person is subject, has been withheld at the source of said income by (Name of person withholding), (Postoffice address).

(Signed)
Address (Street and number)
..... (City and State)

Date, 191..

EXEMPTIONS WHICH MAY BE CLAIMED BY INDIVIDUALS

Any person subject to the normal tax of 1 per cent, the amount of which is withheld or is to be withheld at the source, wishing to avail himself or herself of the exemption provided in paragraph C, section 2, of this act (\$3,000 or \$4,000, as the case may be) must file with the withholding agent, not later than 30 days prior to the day on which the return on his income is due, a notice in the following form:

(FORM 1007)

Form for claiming exemption at the source as provided in paragraph C, section 2, of the federal income-tax law of October 3, 1913.

To: (Give name of withholding agent)
..... (Post office address)

I hereby serve you with notice that I.....am *single—married and living with my wife—husband*, (Strike out so as to show status correctly), and now claim the benefit of the exemption of \$...., as allowed in paragraphs C and D of section 2 of the federal income-tax law of October 3, 1913 (my total exemption under said paragraphs being \$....).

Signed:
Address: (Street and number)

Date.... 191.. (City and State)

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BY WHOM EXEMPTIONS UNDER PARAGRAPH C, SECTION 2, OF THIS ACT, MAY BE CLAIMED

Every single person, or every married person not living with wife or husband, who is liable for the normal income tax under this law may claim a total deduction of \$3,000 from net income, on which deduction he or she is exempt from said normal tax of 1 per cent.

Where a husband and wife live together and only one of them has an annual income liable for the normal tax of 1 per cent, then the husband or wife who has the income shall make the return and pay the said tax and may claim and deduct an exemption of \$4,000.

But if a husband and wife live together and each has an annual income liable for the normal tax of 1 per cent, then in that event they shall make a separate return, and the \$4,000 exemption allowed to a husband and a wife when living together may be claimed and deducted by *either* the husband or wife, as they may mutually agree (but not by both separately), or the said exemption shall be *prorated* between them in proportion to their net income.

AMOUNT OF EXEMPTION ALLOWABLE FOR 1913 UNDER PARAGRAPH C, SECTION 2, OF THE FEDERAL INCOME-TAX LAW

For the present year of 1913 (from March 1 to December 31) exemptions allowed under paragraph C of this law will be five-sixths of those of the calendar year, as specified in paragraph D, namely, \$2,500 if the exemption is \$3,000, or \$3,333.33 if the exemption is \$4,000, as the case may be.

WHEN AND ON WHAT AMOUNT THE NORMAL TAX OF 1 PER CENT SHALL BE WITHHELD

A withholding agent who pays monthly or periodically during the year interest (except income derived from interest upon bonds and mortgages, or deeds of trust, or other similar obligations of corporations, etc., upon which the normal tax of 1 per cent has been withheld at the source, as provided by regulations), rents, salaries, wages, etc., shall not withhold the said tax until such time as the rents, salaries, wages, etc., shall have reached an aggregate amount in excess of \$3,000. When such amount has been reached he, she or it shall withhold the tax on the whole \$3,000 and excess thereof, *unless* the person to whom the income is due files with him, her, or it the notice according to Form 1007, above provided for, claiming exemption under paragraph C of section 2 of this act, in which case the withholding agent shall withhold only the tax on the income in excess of said exemption of \$3,000 or \$4,000 (as the case may be), and the tax so withheld shall be returned and paid by the withholding agent as required by law.

DEDUCTIONS TO BE MADE IN COMPUTING NET INCOME

Any person subject to the normal income tax of 1 per cent, a part

Income Tax Department

of whose income is withheld or is to be withheld at the source, who may wish to avail himself of the deductions authorized in sub-section B, section 2, of this act, may file either with the collector of internal revenue for the district in which return is made for him, or with the withholding agent, not later than 30 days prior to March 1, a return and notice in substantially the following form:

(FORM 1008)

UNITED STATES INTERNAL REVENUE

Form of return for making application for deductions, as provided by paragraphs B and E, section 2 of the federal income-tax law of October 3, 1913.

To (Name of withholding agent)
..... (Street and number)
..... (Town or city) (State)

I hereby solemnly declare that the following is a true and correct return of my gains, profits, and income from all other sources for the calendar year ended December 31, 191— (from March 1 to December 31 for the year 1913), and a true and correct return of deductions asked for under paragraph B of section 2 of the act of October 3, 1913, and I hereby claim deductions as shown below.

Amount of gains, profits, interest, rents, royalties, profits from co-partnerships, and income from all other sources whatsoever\$.....

DEDUCTIONS

1. The amount of necessary expenses actually paid in carrying on business, except business expenses of partnerships, and not including personal, living, or family expenses \$.....
2. All interest paid within the year on personal indebtedness of taxpayer \$.....
3. All national, state, county, school, and municipal taxes paid within the year (not including those assessed against local benefits) \$.....
4. Losses actually sustained during the year incurred in trade or arising from fires, storms, or shipwreck and not compensated for by insurance or otherwise \$.....
5. Debts due, which have been actually ascertained to be worthless and charged off within the year \$.....
6. Amount representing a reasonable allowance for the exhaustion, wear, and tear of property arising out of its use or employment in the business, not to exceed in the case of mines 5 per cent of the gross value of the output for the year for which the computation is made, but not including the expense of restoring property or making good the exhaustion thereof, for which an allowance is or has been made \$.....
7. The amount received as dividends upon the stock or from the net earnings of any corporation, joint stock company, association, or insurance company which is taxable upon its net income \$.....

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8. The amount of income, the tax upon which has
been paid or withheld for payment at the source
of income \$.
Total deductions \$.
Date....., 191.. (Signed).....
Address

NOTE.—Money or other things of value, disposed of by gift, donation, or endowment, shall not be deducted or be made the basis for a deduction from the income of persons or corporations in their tax returns under the income-tax law.

Money or other things of value, disposed of by gift, donation, or endowment, shall not be deducted or be made the basis for a deduction from the income of persons or corporations in their tax returns under the income-tax law.

AMOUNT OF DEDUCTION ALLOWABLE FOR 1913 ACCORDING TO PARAGRAPHS B AND D OF SECTION 2 OF THIS ACT

For the present year of 1913 (from March 1 to December 31) the deductions allowed under paragraph B shall be five-sixths of the deductions allowable for a calendar year, as specified in paragraph D of this law.

AMOUNT OF TAX TO BE WITHHELD FOR 1913, AND WHEN WITHHELD

The withholding agent is not required to deduct and withhold prior to November 1, 1913, the normal tax of 1 per cent for which an individual is liable.

Whenever the total amount of income paid to any person by a withholding agent *after* October 31, 1913, shall be in excess of \$3,000, then, in that event, the withholding agent shall be liable for and shall deduct and withhold the tax on such amount, unless such person shall file a statement according to Form 1007, claiming an exemption as allowed in paragraph D of this act, the amount of exemption allowable being \$2,500 if the annual exemption is \$3,000, or \$3,333.33 if the annual exemption is \$4,000, as the case may be.

PERSONS PHYSICALLY UNABLE TO MAKE RETURNS

If a person subject to said tax part of whose income is withheld or is to be withheld, is a minor or insane person, or is absent from the United States, or unable to make the application or return because of serious illness, the application or return may be made by the withholding agent, who shall make the following oath under the penalties of this act:

(FORM 1009)

Form of oath required of a withholding agent when acting for another in filing return and making application for deductions allowable

Income Tax Department

under paragraph B, as provided in paragraph E, section 2, of the federal income-tax law of October 3, 1913.

I hereby swear (or affirm) that I have sufficient knowledge of the affairs and property of..... (Naming person and address for whom acting) to enable me to make a full and complete return for.... (Naming person), and that the return of income and application for deductions made by me are true and accurate.

(Signed
Address (Street and number)
..... (City and State)

Date....., 191..

Signed and sworn to before191..
.....

PENALTIES

Sub-section F of section 2 of the income-tax law provides *inter alia* as follows:

Any person or any officer of any corporation required by law to make, render, sign, or verify any return who makes any false or fraudulent return or statement with intent to defeat or evade the assessment required to be made shall be guilty of a misdemeanor and shall be fined not exceeding \$2,000 or be imprisoned not exceeding one year, or both, in the discretion of the court, with the costs of prosecution.

Vermont C. P. A. Law

AN ACT TO PROVIDE FOR THE REGISTRATION OF PUBLIC ACCOUNTANTS

(Approved December 20, 1912)

It is hereby enacted by the General Assembly of the State of Vermont:

SECTION 1. A citizen of the United States, resident in the state of Vermont, being over the age of twenty-one years, of good moral character and a graduate of a high school or having an equivalent education, who has received from the state board of accountancy, hereinafter established, a certificate of his qualifications to practise as an expert public accountant, shall be styled and known as a certified public accountant.

SEC. 2. The auditor of accounts, the bank commissioner and a third person to be appointed by the governor shall constitute a state board of accountancy. Such third person shall be appointed biennially in the month of December, and shall hold office for the term of two years from and after the 1st day of January following his appointment. In case of the death, resignation or disability of the member so appointed, the governor shall fill the vacancy. Each member of said board shall receive four dollars a day for time actually spent in the performance of his duties under this act, and each member of said board shall receive his necessary expenses.

SEC. 3. An examination in the theory of accounts, practical accounting, auditing and commercial law shall be held annually for applicants for the certificates provided for in section 1 of this act, on the fourth Tuesday in February; but, if, not less than five months after the annual examination, three or more persons shall apply to the board for certificates, it shall hold an examination for such applicants. The time and place of holding all examinations under this act shall be fixed by the board, and due notice thereof given to all applicants therefor.

SEC. 4. Upon the payment of an examination fee of twenty-five dollars, said board shall examine each applicant and grant certificates to such as it finds qualified. An applicant who fails to pass a satisfactory examination may be re-examined at any future meeting of the board without fee; but, for an examination subsequent to such re-examination, a fee of five dollars shall be paid. Said board shall make an annual report to the state treasurer of examinations given and certificates granted under this act, and shall pay into the state treasury the money received therefor in excess of the expenses of such examinations and certificates.

SEC. 5. Said board shall keep a book in which it shall enter the name of each person to whom a certificate is issued under the provisions of this act.

SEC. 6. Said board may, without examination, issue a certificate to a public accountant who has practised at least five years in compliance with

the laws of another state, upon the payment of a fee of twenty-five dollars and upon the certificate of the board of public accountancy or other like board of the state in which such public accountant has practised, certifying to his competency and good moral character.

SEC. 7. The state board of accountancy may revoke a certificate issued under this act for sufficient cause, provided that written notice shall have been mailed to the holder of such certificate, at his last known address, at least twenty days before any hearing thereon, stating the cause of such contemplated action and appointing a time for a hearing thereon by said board; and no certificate issued under this act shall be revoked until such notice shall have been given and a hearing held in accordance therewith, if requested by the holder of the certificate in question.

SEC. 8. A person who falsely represents himself to be a public accountant, registered under the provisions of this act, shall be fined not more than five hundred dollars.

SEC. 9. This act shall take effect from its passage.

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New York C. P. A. Examinations

Editor, The Journal of Accountancy:

Sir: Having read your editorial in the September number of *THE JOURNAL OF ACCOUNTANCY* relating to the C. P. A. examination, in which you ask for views from the different members of the profession regarding same, I wish to contribute my views on the matter and shall be very much interested in reading those of others.

I think you will agree with me that a subject as important as the one under discussion should be viewed from every possible standpoint. Accountants practising for themselves and accountants in their employ, as well as accountants not in public practice, but holding responsible positions in either public or private life, should express their opinions freely and I feel that after all the evidence is in, right will prevail in the end.

The profession of accountancy in this country has been made by accountants and is rapidly approaching a point where it will take big strides either way; and it is decidedly "up to" the accountants themselves as to whether the degree that so many states are conferring on their citizens will mean what it should mean or be a joke to the business world.

It is needless for me to go back to 1896 and relate how at that time the law was put into effect creating the degree of C. P. A. in this state. Certain people having certain qualifications were at that time handed their degrees and the "profession" was established. Many of those having the degree thus handed to them hung out their shingles and started on a general campaign of educating the business public how necessary it was to have a *certified* public accountant do their work.

Nor is it necessary to do more than mention that several years later on just one occasion the preliminary qualifications were waived and anyone possessing the necessary references as to character was allowed to take the C. P. A. examination. Since then the gates have been closed tightly on the preliminary qualification and, in fact, twelve more regents' counts have been added to the already large number. This waiver took place I am sure not less than ten years ago.

The result is that today we find men in this state who have ten years' practical experience in field work, are good accountants with a broad and varied experience and, in many instances, have built up a large practice for themselves, but they are denied the privilege of taking the C. P. A. examination for the reason that they have not had an academic education or its equivalent. On the other hand, we find a lot of young blood hanging out signs as certified public accountants, very long in theory and woefully short on experience. Don't misunderstand me and think that I place little value on theory. I think it essential to the capable accountant, but practical training is just as essential and more valuable to the business world.

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Consequently before we get to the question of the C. P. A. examination my contention is that a more serious question confronts us and that is: Why should a man who has served faithfully and conscientiously from five to ten years as a practical accountant be barred from taking this examination because he has not had an academic education?

In marking examination papers for government positions a certain per centum is allowed for experience. The workings of our C. P. A. laws in this state apparently discount experience. A college education is certainly desirable for any man, or if that is impossible a high school education helps; but are these absolutely essential to becoming an efficient accountant?

Is the state of New York strengthening its certified public accountants today by holding strictly to this preliminary qualification? There is a remedy for this to be sure; educate yourself; take the regents' examination and get the sixty counts required. This remedy is possible for about three per cent of the men who are working for live firms of accountants, for by the time they finish their work and keep up to date on necessary reading they have no time left to study French or German or Latin for regents' examinations.

The writer has had thirteen years' experience in the accounting field, and being more fortunate than some, had the necessary preliminary qualifications, but did not take the C. P. A. examinations until nearly ten years had passed.

During those thirteen years I have been in the employ of some of the largest and best-known accountant firms in this country, both in the capacity of senior and junior accountant, and I am not in the least ashamed in saying that I learn something on every piece of work on which I am engaged and know that I still have much to learn. I merely mention this to show you that I am speaking from a worker's point of view.

As to the examinations themselves, I must confess that it would seem more time should be given. It seems to me that one day each for theory and auditing, and two whole days for practical, with one-half for law, thus taking one week's time, would allow a more comprehensive examination. I would suggest that no one be allowed to take the practical until he could show at least three years' experience with a public accountant—not as a stenographer or clerk either. Also, in the case of a man lacking the preliminary qualifications who could show five years' practical experience, either as a senior accountant or in actual practice for himself or both, the preliminary educational requirements might be waived, and such person be allowed to take the examination.

Why not include experience, education and the examination as the qualifying elements? That is, if 100% is perfect and 85% passes the applicant, why not rate regents' counts as 10? Some men possess less than 60 regents' counts. Let the examiners give as many of the ten points for education as the applicant's "counts" for preparatory education justify.

Count experience on the basis of five points for each five years' experience in a subordinate capacity and ten points for each five years in a senior capacity, (meaning either as employer or a supervising employee).

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The longer service to a man's credit, the better qualified he is and fifteen years should count much. Let the examination be worth 75 counts in the 100.

By this plan a man with scant educational preparation, would have a chance if by reason of long experience he is really a good accountant. The man without experience would have to be able to overcome those fifteen points. If he can do this even with only five years' experience to his credit, let him in. He is the kind we need.

In conclusion let me say that for many years I looked forward to the day I could sign C. P. A. after my name and it is no easy matter to get that degree as many know, and I am still proud of it, but when I look around and see good men kept from having a chance at it because, in nine cases out of ten, they were unfortunate and had to go to work before their education was completed, it cannot but lessen my respect for the degree.

The business world is awaking to this fact and I firmly believe unless something is done to right this condition—and done soon—the C. P. A. degree will be a joke.

All I ask is fair play, for we all know the certified public accountants of New York need all the good men they can get.

Yours very truly,

R. H. DILLINGHAM, C.P.A.

C. P. A. Examinations

Editor, The Journal of Accountancy:

Sir: Attached hereto find solution of question 5, part 2, practical accounting, 35th New York C. P. A. examination. This is the writer's conclusion, but had he encountered such a question in actual practice, more information would have been elicited from A and B.

The problem, as stated, does not appear to be quite fair for the applicant, and his reply thereto might be open to some question by the examiners, depending upon their particular viewpoint when framing the problem.

Several years ago the writer was requested to show the loss of an oil mill. A portion of the combination cash and journal was produced, together with three trial balances and the daily cash reports. The ledger and all the original papers were reported as being destroyed by fire.

The result of this examination indicated a loss of approximately \$20,000, but the particular items going to make up this deficiency could only be ascertained by taking the tonnage records of the railroad company relative to the shipment of cotton seed from gins of the company and outside parties.

It is not believed that ledger was burned, and if it is yet in evidence I feel quite sure, barring cross entries, that the report as written will

Correspondence

coincide with the ledger. It would be interesting to see what kind of replies would be received from professional accountants after reading a problem framed from the data upon which the report was written.

Very truly yours,

W. P. PETER.

Dallas, Texas, October 2d, 1913.

New York C. P. A. Examination June 25, 1913

Solution to Q 5, Practical Accounting, Part II

Data	Alleged inventory Paterson store Jan. 1st, 1912\$ 3,800.00 Purchases for both stores-Jan. to July-Paid for .. 5,128.80 Due creditors, account of both stores 1,500.00 Cash sales, Newark store 1,875.00 Cash sales, Paterson store 3,105.00 Net worth Paterson store July 1, 1912 4,573.50 Net worth Newark store July 1, 1912 3,600.00 Show the correct inventory for Paterson store Jan. 1st, 1912.
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Remarks In the absence of any statement to the contrary, it must be assumed that A and B are equal partners, and that the two stores are liable in equal amounts to the creditors.

Paterson Store Account	The net worth of the Paterson store as stated, is ... 4,573.50 Alleged inventory Jan. 1st \$3,800.00 Purchase account 3,325.00 <hr style="width: 50%; margin-left: 100px;"/> Total to account for 7,125.00 Less 50% of sales \$3,105.00 1,552.50 <hr style="width: 50%; margin-left: 100px;"/> Showing total assets \$5,572.50 Less ½ amount due creditors \$1,500.00 750.00 <hr style="width: 50%; margin-left: 100px;"/> Would show the net worth to be 4,833.50 and indicates overstatement of inventory for\$ 249.00
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Newark Store Account	The net worth of the Newark store as stated, is\$ 3,600.00 Total purchase of both stores, paid for\$5,128.80 Due creditors for both stores 1,500.00 <hr style="width: 50%; margin-left: 100px;"/> Total purchase both stores\$6,628.80 Less Paterson store purchase stated 3,325.00 <hr style="width: 50%; margin-left: 100px;"/> Total Newark purchase\$3,303.80 Less 50% of sales \$1,875.00 937.50 <hr style="width: 50%; margin-left: 100px;"/> Purchases to account for \$2,366.30 Less ½ amount due the creditors . \$1,500.00 750.00 <hr style="width: 50%; margin-left: 100px;"/> Shows net assets in purchase account 1,616.30 Would indicate Newark inventory Jan. 1st\$ 1,983.70
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Proof	Inventory Paterson Jan. 1st	\$3,800.00	
	Less indicated overstate- ment of inventory	249.00	\$3,551.00
	Inventory Newark as indicated	1,983.70	\$ 5,534.70
	Purchases paid for	\$5,128.80	
	Purchases on credit	1,500.00	6,628.80
	Total purchases to be accounted for		\$12,163.50
	Sales Paterson	\$3,105.00	
	Newark	1,875.00	\$4,980.00
	Less 50% for profits		2,490.00
	Indicates the gross assets to be		\$ 9,673.50
	Less Paterson net worth	\$4,573.50	
	Newark net worth	3,600.00	8,173.50
	Would leave balance due to creditors July 1st		\$ 1,500.00

Interest and Cost

Editor, The Journal of Accountancy:

Sir: I have read with much interest articles and correspondence in THE JOURNAL OF ACCOUNTANCY relative to the question of including interest and rent as a part of manufacturing cost, and was particularly pleased to see the reproduction in the August number of Mr. A. Lowes Dickinson's article on this subject. In the same number you print a report made by the special master appointed by the United States circuit court of appeals at St. Paul showing the legal view of the matter. In connection with one or two statements made therein may I be permitted to add a word?

Upon page 148 it is stated in this decision that "the interest being actually paid is a legitimate charge against the profits," and it is further added that "there is no proof or claim that the capital invested in the business, upon which the defendant claims the sum of \$82,184.92 interest in diminution of the profits, is borrowed capital," and the master then proceeds to say that "if such were the case and such interest had been actually paid out to the owner of the borrowed capital as expense of production it would have been as legitimate an item of expense as is the interest on borrowed money."

To the writer these statements appear to cover an absurd fallacy. In the first place this interest was a part of the profits and not of the cost. They had no business to pay it out because they had no right to make it, contention being that their operations were not legitimate. But, in any case, it should not be allowed. As to the question of charging up interest against manufacturing cost it is absolutely immaterial whether the interest is on borrowed capital or on capital that is invested in the business in some other way. Interest which is paid out on borrowed capital is

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theoretically just as much a part of the profits as interest which is paid out in the form of dividends declared. Interest is, so to speak, a forced dividend which is paid out in connection with the capital so contributed whether any profits are made by the concern or not, and if they fail to make profits then the payment of this interest is a capital expense and works an impairment of the capital.

At the close of this article an authority is quoted in which the distinction is drawn between interest which has been paid upon the capital invested and computed interest which has not actually been paid or incurred.

It seems to the writer to be quite important that this question should be cleared up from the accountant's point of view, but we do not see how it is possible to justify the legal finding to which we have just referred.

Yours very truly,

WALTER C. WRIGHT.

Los Angeles, October 17, 1913.

Bank vs. Sureties

Editor, The Journal of Accountancy:

Sir: The writer wishes to take advantage of the invitation often expressed in *THE JOURNAL* to write articles or ask questions through your columns. Quite an amount of knowledge has been obtained by our professional brethren through *THE JOURNAL* and it is logically the proper organ for discussing matters of importance to the profession.

I would like to ask what mention, if any, should the accountant make in his certificate of the following case:

"A" (the accountant) is called in to make an audit of "B" (the bank) and in the course of the examination it is discovered, or should be, that B is acting as surety in many instances for firms or individuals, to the extent of several hundred thousand dollars. B has all the right to do so, under its charter and with full knowledge and consent of the directors and stockholders.

It is apparent to the reader that there exists a contingent liability.

How would you treat with this item in your balance sheet?

Yours truly,

CHAS. R. SHANNON.

Memphis, Tenn., October 2, 1913.

Announcements

W. R. Mackenzie & Son, certified public accountants, announce that on and after October 1st, 1913, their offices will be in the Wilcox Building, Portland, Oregon.

Frederic Stewart, C.P.A. (Massachusetts) announces that he has opened offices at 76 Atherton Street, Boston, Massachusetts.

Leslie and Company announce a change of address from 366 Fifth Avenue to 128 Broadway, New York.

W. L. McFarland, president of the Tennessee Auditing Company, announces that from November 1st, 1913, he will take into partnership Clarence E. Johnston of Chicago and will practise under the name of McFarland, Johnston & Company.

Waldron H. Rand and Company, certified public accountants, announce the removal of their offices to 101 Milk Street, corner Pearl, Boston, Massachusetts.

P. A. Eckes, C.P.A., Richard Fitz-Gerald, C.P.A., and W. N. Dean, C.P.A., announce the opening of an office at 141 Broadway, New York, and a branch in the Wilson Building, Dallas, Texas.

Wm. McK. Evans, C.P.A., announces the removal of his office to the *Times Dispatch* building, South Tenth street, Richmond, Virginia.

John Gordon, C.P.A., announces that he has admitted to partnership Burnham Asch, C.P.A., and that the business hereafter will be conducted under the firm name of John Gordon and Company, certified public accountants, with offices at 1123 Broadway, New York.

Webb, Read, Hegan, Callingham & Co., chartered accountants, announce that they have recently opened an office at 1302 C. P. R. Building, Yonge Street, Toronto, Canada.

The *Incorporated Accountants' Year Book*, issued by the council of the Society of Incorporated Accountants and Auditors, is published. It contains the names of 2,613 members. The society has district organizations in thirteen of the leading towns of Great Britain, and branch societies in Scotland, Ireland, Australia, South Africa, and Canada.

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No. 6

Investigations for Financing Purposes*

BY GRENVILLE D. MONTGOMERY,

of Henry & West, Bankers

What you expect to hear from me, I believe, is how a dealer in investments proceeds—or should proceed—when he investigates the securities which he proposes to purchase for his own account to be sold later at a profit; what the essential facts are upon which he bases his judgment of those securities; what experts he employs to enable him to determine these facts, and what experience he brings to his aid. I must say at once that the subject chosen is a very vast and comprehensive one and in the time and space allotted can only be handled in a very sketchy and general way. Even issues of entirely similar character must often be viewed at utterly different angles, and one cannot compress into a short address all the subject involved, nor yet a lifetime's experience. I shall, therefore, in what I am about to say, confine myself to investment bonds of going or established concerns of domestic origin, and, generally speaking, to those which a banking house, to use a street phrase, originates. Luckily, (often unluckily from the sordid and, of course, negligible point of view of profit!) these constitute by far the most important part of any house's business, and when you join with another house, or houses, you must usually take it for granted that the same skill and care you would yourself exercise have been employed.

Now in everything one does or says that is important, I

* A paper read before the Pennsylvania Institute of Certified Public Accountants, Philadelphia, November 18, 1913.

believe that the attitude of mind toward the subject in question is an essential consideration, so before I am fairly launched in my subject I will say that in everything your banker proposes to buy he must never forget that his future and reputation are largely at stake, and he should always remember that he is, in last analysis, about to direct the disposal of other people's money and be held at least morally responsible for the outcome. This money is often the savings of a lifetime and the fruit of years of toil and endeavor, or the shelter and sustenance of old age and the helpless.

Bonds, as you know, are roughly divided into four classes, and the order of their classification is almost exactly the order of their merit and soundness. These classes are:

Government and municipal bonds.

Steam railroad bonds.

Public utility bonds.

Industrial bonds.

Government and municipal bonds are in a class by themselves, and the essential facts back of them which establish their great security are the taxing power vested in the political unit which issues them and the definite and clearly determined statutes which govern their issuance. In last analysis, they are an absolute first lien against all taxable property, even ahead of first mortgages. In the event of default the courts will protect the holder, and, unless the community issuing them loses its existence, they must be paid. I realize that an individual cannot sue our government or a state without their respective consents, but unless you have good reason to doubt their very existence you need hardly let that fact disturb you, since you know that they cannot continue unless their just debts are paid. The only expert to be employed is an able and thorough lawyer, who determines, from an examination of all the necessary documents, whether the loan is properly issued. Experience teaches you to consider:

The size, stability and prosperity of the debtor;

The percentage of net debt to assessed valuation of taxable property;

The population and its growth over a term of years;

The debtor's general credit and desirability as a moral risk.

These considerations probably need no amplification or explanation. They are, after all, more concerned with the salability

Investigations for Financing Purposes

and ultimate marketability of the loan, which is not a part of our subject.

I do believe, however, that "general credit and desirability as a moral risk" are especially important in the class of bonds we are now discussing. No one welcomes a default, and honor itself should not be a more delicate and sensitive thing than government or municipal credit. Even in these bonds some very startling things have happened.

Next in our classification are steam railroad bonds. The essential facts are that almost all the history and operations of the railroads are matters of public knowledge and minute record, that they are generally regulated by the Interstate Commerce Commission, and in many cases by state commissions, and that they constitute in human economy the great arteries of commerce without which a high order of civilization cannot exist. They come to the investment dealer from the large banking houses, such as J. P. Morgan & Company, Kuhn, Loeb & Company, and a few others, who, presumably, have exercised the ability and care in their scrutiny of them that you would expect of houses of such standing and justly deserved reputation. You, therefore, can dispense with the services of any experts.

Here, experience dictates that you should know exactly, first, the position of the loan offered with reference to the security behind it, and just what property or collateral is pledged and how valuable it probably is. It goes without saying that a first mortgage is better than a second one; that a lien on the main line is more desirable than one on a branch; and that a note with definite, valuable and marketable collateral pledged to secure it is safer than a plain note of hand. Second, you should know the exact terms of the mortgage. There should be nothing uncertain, ambiguous, or dangerous in it, and your bond will not be weakened by an adequate sinking fund. Third, you must be familiar with the road's earning power, with special reference, of course, to the new loan, and must consider carefully the margin of safety which those earnings exhibit. Fourth, the position and history of the road are important. Does it operate in a thickly populated and growing community where there is a dense traffic, or in a sparsely inhabited one producing little tonnage? Has its history been one of success and safe

growth, or is the testimony in this direction indifferent or bad? What is the character of the traffic handled and is the road too dependent upon any class, or classes, of tonnage? Fifth, you should know the general reputation and credit of the management. Has the property been improved and properly maintained out of earnings, or have dividends been too frequent and too large? Has it over-discounted the future in its expansion and search for new business? Has it been administered as a common carrier should be, or with the idea of making immense sums of money for the insiders?

Again we are face to face with a most important factor. There is a reason for the general regard of the investing public for a Pennsylvania Railroad obligation, and an equally good one for that same public's lukewarmness toward those of some other roads, which I need not mention.

Before we proceed to the next class I desire to say that I realize there have been many defaults in steam railroad bonds, and much bitter experience. Bad management or too selfish administration, unwise legislation, constantly increasing demands for expensive improvements and costly service and for higher and higher wages, all have had, and are still having, their influence, but I maintain that if you are armed with the proper facts and exercise ability and good judgment in picking your issues you will rarely go wrong, and that steam railroad bonds are usually very safe.

The third class is the bonds of the so-called public utility corporations—those furnishing the public with gas and electricity for light or power, or both, and with street railway transportation. One of the most essential facts about them is that they are public necessities and that we cannot get along without them. Also, their history has been very good, even in times of general depression, and as our people have increased and their business has grown these companies as a rule have been proportionately prosperous. A possible exception is street railways, but the trouble with them, I believe, has been largely mismanagement, over-capitalization, reckless combination, under-estimation of cost of construction and operation and over-estimation of earnings and the fact that they have often been operated with apparently the sole idea of enabling insiders to unload on the public bad securities at inflated figures.

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The experts to be employed are (1st) the engineer and appraiser, who determine for you the security back of the loan and what the actual physical value of the property is. They should cut to the bone in their reports and should go very deep into all the facts. They should also be asked to give you the benefit of their advice and experience.

Next you should know under what franchises the company operates and what their maturities are with reference to the due date of the bonds you propose to buy. Also, what conditions they impose on the company. Your lawyer passes upon them, and the legality of the issue and your own common sense and experience check his sometimes too professional opinion. You must exercise your business sense as to the business meaning and reasonableness of what he tells you. Then your accountant investigates and reports upon the company's earning power, again with special reference to the loan before you, and goes back over a term of years. If it is necessary, you should caution him to take nothing for granted and to get at the facts back of the company's report. You can also secure from him intelligent and valuable advice—the fruit of his experience. Next, you investigate the record and history of the management, and what type of men compose it. Are they interested in the company as managers, or too largely for their own private profit? How are they regarded by the community which they serve? What kind of an organization have they built up, and what are their relations with their employees? Then, what is the character of the territory served—stable and growing? What is the volume of business done and what growth in population has been experienced? What is its record in bank clearings, post office receipts and other indices of the business the territory produces, and will produce? Again, what is the attitude of the public served as expressed by its legislation—reasonable and just, or hostile and confiscatory? Further, what are the provisions of the mortgage and does it contain an adequate sinking or depreciation fund? What restrictions does it impose on future issues of the bonds? Yet again, has the company enough working capital, and has it made reasonable provision for accidents to its patrons and employees by means of an insurance fund of its own or through the regular insurance channels? There are many more considerations which space prohibits me from enumerating.

I will pass from this class by saying finally that you should sum up, by asking yourself what pitfalls experience with similar issues in the past has led you to avoid in the present one, such as labor troubles, the fact that certain territories are notoriously subject to earthquakes, floods and other acts of God. Also, how the proposed issue compares with like ones which have been entirely successful, and if you can answer satisfactorily to yourself, and your associates, any reasonable arguments that can be made against your issue, and if your reason, experience, knowledge and imagination are entirely and adequately satisfied. Take nothing for granted. Do not allow yourself to be hurried. Demand and exact answers to every question you can ask. No corporation can nowadays afford to refuse any reasonable, or perhaps unreasonable, request for information which comes from the men who lend them their own and other people's money.

Our last class is the bonds of industrial concerns, and here the greatest possible care and scrutiny are imperative, probably because so much depends upon management. The favorable factor, I believe, is that you can and do secure more complete and exhaustive information about them than about any others, and we all know that a reasonable man cannot say that a bond is insecure just because it belongs to a certain class and that class is lowest in the scale and has the least favorable history.

Here, our first and foremost consideration—as indeed it is in all classes—is the security for the loan, the foundation upon which it rests. You must be so sure in this class that you should not touch the bonds unless the property mortgaged is as junk and real estate worth the par of the bonds, and always will be, or unless the property plus the excess of net quick assets, rigidly defined and covered exactly and completely by the mortgage, is more than similarly valuable.

The same experts employed in the case of public utility issues are called in here, and you must be doubly sure that they have done their work thoroughly and with minute care. Then, in addition to much of the experienced scrutiny applied to the preceding class, I feel that you should only lend to a business dealing in a necessity of life, for which there will always be a demand, and only to one as little as possible subject to adverse influences, arising from new patents or processes. Said business should also be in no way too dependent upon artificial protection, such as

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high tariff laws, excessive profits—which almost invariably dwindle, according to a well-known economic law—and other dangerous and questionable features. Then you must think doubly hard about the management, because it is in this class so peculiarly vital to the success of the business. You must consider its make-up and character, how established and of what age it is, and how it will be carried on provided the prominent officers die or are incapacitated, and how much said officers are interested in the particular business you are going to finance or some others. Ask a good credit man for a line on them. Next, apply every test that you can command or think of and call upon all your experience and knowledge; get the views of some expert engaged in a similar business and with years of valuable experience back of his judgment. Then try and discount everything that is told you, remembering that it is exceedingly rare that estimates and predictions are wholly fulfilled. Beware—this applies to a consolidation—of organization expenses, condition of plants taken over, unforeseen extras, questionable contracts, etc. Be always a sane and reasonable doubter and try to imagine some possible and blasting occurrence which can upset all your calculations and reverse your entire judgment. It is not too much to say, in this connection, that you should remind yourself that life itself, and everything human, is uncertain.

I have made no mention of how the times you are in and new laws, changed conditions, etc., affect your judgment. These omissions have been purposely made, but such condition are of great importance in the investigation of any proposition submitted to you.

The Language of Accounting

BY CHARLES M. VANCLEVE

The simple bookkeeping needed in conducting a small business is so much a matter of routine that anyone who knows the elements of arithmetic can readily acquire the art with a little practice. But it is quite a different matter calling for quite a different grade of ability, to be able to devise and execute a system of accounting which will cover the vast operations of a great corporation doing business under modern conditions of competition, where all items of cost must be accurately determined and all parts of the organization must be kept under efficient control.

With the growth of corporations and the development of business on an enormous scale which has taken place in recent times, accounting has become a great profession, offering a field for the exercise of talents of the very highest order and enlisting the services of men who in character, intelligence and practical ability rank with the best in any vocation. But with all this advancement, so gratifying to the members of the profession, there is one respect in which accounting has made no improvement since double-entry bookkeeping was invented—it still uses the most unintelligible technical language that ever prevailed among men engaged in a rational pursuit.

Accountants themselves are well aware of that fact and frequently deplore their lack of an accurate nomenclature. Learned societies composed of the leading members of the profession, have had the matter under discussion, and many articles have been published urging the necessity of standardizing the use of accounting terms. But all these efforts have accomplished little because they failed to go to the root of the matter. The trouble with the language of accounting is a fundamental one and has its origin in a false interpretation of double-entry bookkeeping.

In that system of accounting, when the books are closed and the balances are brought down to new account the total of the balances brought down as debits always equals the total of the balances brought down as credits, and in making his statement the bookkeeper enters all debit-balances as assets and all credit-

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balances as liabilities, thus showing assets and liabilities equal. Now the idea that balances brought down as debits necessarily represent asset and that balances brought down as credits necessarily represent liability is evidently false, since it leads to a self-contradictory conclusion; it makes net asset a liability and net liability an asset.

On account of the self-contradictions involved in the form of statement showing assets and liabilities equal, it would inevitably have been rejected were it not for the fact that the early accountants succeeded in devising an apparent explanation which satisfied them and has been accepted by the majority of accountants ever since. They explained that double-entry bookkeeping does not deal with the assets and liabilities of the proprietors, but with those of an imaginary intermediate party. In partnership accounting, for example, they regarded the firm as an intangible entity standing between the proprietors and the outside world. Whatever is owned by the firm or owed to it by outside parties the firm owes to the proprietors, and whatever is owed by the firm to outside parties the proprietors owe to the firm, therefore the assets and liabilities of the firm are always equal.

That explanation certainly seems very plausible, but it has one radical defect—it proves too much: it not only makes assets and liabilities equal; it makes them identical. The amount under the head of accounts receivable is an asset of the firm because outside parties owe it to the firm; but it is also a liability of the firm because the firm owes it to the proprietors. The amount under the head of accounts payable is a liability of the firm because the firm owes it to outside parties; but it is also an asset of the firm because the proprietors owe it to the firm. The idea of counting from the standpoint of an imaginary intermediate party makes every item which is asset or liability at all both an asset and a liability, thereby obliterating all the fundamental distinctions of accounting. Now the whole trouble with the current language of accounting is that it is based upon that idea, and for that reason it is so confused and self-contradictory, that in many cases it makes it almost impossible to carry on a rational discussion of accounting problems.

Having located the source of the confusion in the language of accounting it is easy to point out the remedy. In order to

make their language as clear and precise as that of any other vocation all that accountants have to do is to abandon the custom of calling net asset a liability and to use words in their proper sense—to say *asset* when they mean asset, *liability* when they mean liability, and *net capital* when they mean net capital. That remedy is so obvious that one might be inclined to think that if it were applicable at all it would have been adopted long ago; but the fact of the matter is that accountants have been so long accustomed to use the words *asset* and *liability* from the standpoint of an imaginary intermediate party that most of them firmly believe that in double-entry bookkeeping it is impossible to use them in any other way.

That idea is entirely wrong. Anyone who will approach the subject with an open mind will find that the proper use of the words *asset* and *liability* is just as easy in double-entry bookkeeping as it is in single-entry bookkeeping.

In order to take a correct view of the matter the first thing needed is to have a clear conception of the nature of a firm or a company, and to get rid of the idea that it is an intangible entity standing between the proprietors and the outside world. Both in law and in bookkeeping a firm or a company is a fictitious or imaginary person; but it is not an imaginary person separate from the proprietors; it is an imaginary person composed of the proprietors. In other words, a firm or a company is an imaginary composite person as distinguished from an actual individual person. A firm or a company is merely an organization of individuals—apart from the persons who compose it, it has no existence. We cannot separate a firm from its members nor a company from its stockholders; the members are the firm and the stockholders are the company. The words *firm* and *company* are simply what the grammarians call *collective nouns*, the one meaning the partners collectively and the other meaning the stockholders collectively. Therefore when we speak of the assets and liabilities of a firm we mean the assets and liabilities of the partners collectively and when we speak of the assets and liabilities of a company we mean the assets and liabilities of the stockholders collectively. In both cases, as well as in the case of an individual proprietor, assets and liabilities, like losses and gains, are almost invariably unequal. Excess of assets over liabilities is net asset; excess of liabilities over assets is net lia-

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bility ; excess of gains over losses is net gain ; excess of losses over gains is net loss.

We must distinguish between the personal and the business relations of the proprietors, but that is a distinction which every bookkeeper instinctively makes. When we speak of the assets and liabilities of a company we do not mean the personal assets and liabilities of the various stockholders ; we mean the assets and liabilities of the stockholders as proprietors of the business whose accounts we are keeping. It will be noted also that the fact that the personal liability of the members of a corporation is limited by law, while the personal liability of the members of a firm is unlimited, does not affect the discussion. The debts of a corporation are not personal liabilities of the stockholders, but they are liabilities of the stockholders as proprietors.

The distinction which must be made in bookkeeping between the owners' business relations and their personal relations—that is to say, the distinction which must be made between the owners as proprietors and the owners as outside parties—sometimes involves the necessity of recording self-contradictory debts. If, for example, the company whose accounts we are keeping decides to declare a dividend we record that decision by debiting surplus and crediting dividend, and carry the item as a liability. That item, of course, represents a self-contradictory debt since each stockholder is on both sides of it—as proprietor he is debtor to exactly the same extent to which as an outside party he is creditor. But if the dividend is declared in accordance with the law, the law recognizes the debt, and therefore in the public statement of a corporation it is proper to show such an item as a liability.

Another thing that needs to be clearly understood is that the bookkeeping use of the words *asset* and *liability* differs somewhat from the common usage. In ordinary language these two words are nearly but not exactly opposites in meaning, while in accounting they are exact opposites. Double-entry bookkeeping records every asset as a debt owed to the proprietors and every liability as a debt owed by the proprietors ; these two forms are exact opposites, and therefore it follows that in double-entry bookkeeping the words *asset* and *liability* must be used as exact opposites. In accounting, then, the opposite of an asset is a liability and the opposite of a liability is an asset.

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For illustration we will assume that we have among our assets machinery which was new at the beginning of the year and cost \$20,000; but now at the end of the year we estimate that the machinery has depreciated in value to the extent of \$2,000, making its present value \$18,000. According to that showing we have lost \$2,000 during the year through the wear of the machinery. In order to record that loss we could, of course, debit profit and loss and credit machinery and carry the balance \$18,000 down to new account as an asset. But it is desirable that the account dealing with the machinery should show its original cost rather than its present value and therefore to record the loss we do not make any entry in that account but debit profit and loss and credit depreciation of machinery, and carry the item \$2,000 as a liability. In this way our books show the machinery as an asset at \$20,000, but with an offsetting liability of \$2,000, thus making the net asset \$18,000 as it should be.

From the lawyer's point of view there can be no liability except a debt owed to a person or a group of persons, and therefore in the legal sense of the term the item of \$2,000 under the head of depreciation of machinery is not a liability, because it is not a debt owed to any person or persons; but in the bookkeeping sense of the term it is a liability, because it is the opposite of an asset. Now of course it would not be admissible to have a bookkeeping definition of the word *liability* which conflicted with the legal definition; but it will be noted that while the bookkeeping definition is broader than the legal definition it does not conflict with it in any way whatsoever. In our books we use two accounts to show the correct value of the machinery, but on our statement we can conform to the legal use of the words *asset* and *liability* by combining these two accounts into one. On our statement, then, instead of showing the \$20,000 as an asset and the \$2,000 as a liability, we make the following entry on the asset side of the sheet:

Machinery	Original cost	\$20,000
	Less depreciation	2,000 \$18,000

It follows, therefore, that although the bookkeeping use and the legal use of the words *asset* and *liability* differ somewhat, yet in the end they come to exactly the same thing.

In reference to the above entry it may be well to call attention to the fact that it is not in accordance with common usage. In

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recording the loss due to the wear of the machinery it is the general practice to debit profit and loss and credit reserve for depreciation of machinery, and then to make the entry on the statement in this form:

Machinery	Original cost	\$20,000
	Less reserve for depreciation	2,000 \$18,000-

That form of entry simply shows that the accountant is so accustomed to the use of self-contradictory phrases that he fails to notice one when he sees it. From the very nature of things a reserve must be either a part of the assets or a part of the net asset; it cannot be the opposite of an asset under any circumstances whatsoever. To speak of a reserve as reducing the assets involves an incongruity of ideas which practically amounts to a contradiction in terms. Of course in this case the accountant's mistake is in calling the item a reserve. Instead of heading the account "reserve for depreciation of machinery," he should head it simply "depreciation of machinery," and then he would readily recognize the fact that the entry under that heading represents a liability, that is to say, the opposite of an asset.

We have now developed the two fundamental propositions upon which the correct use of accounting terms must be based. They are as follows:

1. In double-entry bookkeeping, as in any other proper system of accounting, the words *asset* and *liability* must be used from the standpoint of the proprietor or the proprietors collectively. There is no intermediate party either in the case of a single proprietor or in the case of a firm or a company—the partners are the firm and the stockholders are the company.

2. In double-entry bookkeeping the words *asset* and *liability* must be used as exact opposites, and therefore anything which is the opposite of an asset is a liability and anything which is the opposite of a liability is an asset.

The first proposition restores the fundamental relations of accounting. As viewed from the standpoint of the proprietor or the proprietors collectively assets and liabilities are almost invariably unequal and the excess of assets over liabilities is the net capital.

The second proposition does away with the only serious objection that has ever been made to the proposal to separate the three classes of items on the balance sheet, namely, that on the

balance sheet there are or may be items which represent nothing more than offsets to assets or liabilities and therefore cannot be classed under any of the three headings. Since an offset to an asset is a liability and an offset to a liability is an asset it is evident that the objection is based upon a misunderstanding of the meaning of the words *asset* and *liability* as used in double-entry book-keeping. As a matter of fact, every item on a correct balance sheet must represent either asset or liability or net capital—it cannot represent anything else; and therefore no valid objection can be brought against the proposal to make the statement in a form showing the three classes of items separately.

In the case of a single proprietor it is customary to carry one account to show the net capital—the proprietor's account. Therefore to make the statement in proper form we enter on the left-hand side all the assets and the total, and on the right-hand side all the liabilities and the total, and then enter the amount of the net capital, the balance of the proprietor's account, which makes the two sides equal.

In the case of a firm or a company the statement can be made in the same way, except that in place of the balance of the single proprietor's account we have the balances of the proprietorship accounts of the various partners or the balances of accounts like capital stock and surplus. But it is always desirable to show the amount of the net capital in one item, and therefore in the case of a firm or a company it is better to make the statement as follows. We enter on the left-hand side all the assets and the total, and on the right-hand side all the liabilities and the total, and also the balance, which represents the net capital. We carry the balance down on the left-hand side and then enter on the right-hand side all the remaining items, those which compose the net capital, giving the totals to show that the two sides are equal.

Bookkeepers seem to think that in the case of a company capital stock and surplus are the only items representing net capital, but as a matter of fact the balance sheet of a great corporation may contain a dozen or more items each of which represents a portion of the net capital. In the statement of a railroad company, for example, as made at the present time, we find under the head of "liabilities" items like the following: capital stock, premium realized on capital stock, additions to property through income, sinking, redemption and other reserve

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funds, reserve for additions and betterments, etc., etc. Such items do not represent liability; they represent portions of the net capital which, for the reasons indicated by the titles, are to be reserved, that is to say, are not to be distributed in dividends.

The items under the headings "capital stock" and "premium realized on capital stock" show portions of the net capital which are not to be distributed in dividends because they represent the capital contributed by the stockholders, and dividends are not to be paid out of contributed capital. The item under the heading "additions to property through income" shows a portion of the net capital which is to be reserved because that amount of the profits has been invested in permanent improvements, and profits which have been invested in permanent improvements cannot be distributed in dividends. The item under the heading "sinking, redemption and other reserve funds" shows a portion of the net capital which is not to be distributed in dividends because the company must accumulate profits in order to redeem its bonds and other obligations. The item under the heading "reserve for additions and betterments" shows a portion of the net capital which is not to be distributed in dividends because the company intends to invest that amount of the profits in permanent improvements.

In addition to the reserve accounts there must be a residual account to show the remainder of the net capital after all the amounts indicated as set aside or reserved have been deducted. The residual account is usually carried under the title "surplus," but in railroad accounting it is carried under the title "profit and loss" and in bank accounting under the title "undivided profits."

The above discussion illustrates some of the possibilities of the language of double-entry bookkeeping when freed from the false interpretation which has so long obscured it. As soon as accountants learn to use the words *asset* and *liability* in their proper sense and to make their statements in a form showing assets, liabilities and net capital separately, they will find that they have the most flexible and the most comprehensive technical language that has ever been devised—a language capable of expressing every fact and every idea that has any connection with the art of accounting. For the purpose of keeping a record of financial affairs it is absolutely perfect.

Applying Efficiency Standards in Central Station Accounting

BY H. C. MILLER

Real efficiency is predicated on results. Given an up-to-date machine equipment with capable operatives manning it and you have latent efficiency. Given machines and operatives with poor shaft alignment and you have a percentage or degree of efficiency—we might call it an efficiency factor as we speak of power factor or load factor. Real efficiency depends upon perfect coördination of all of the factors of a process. Improper functioning at any point produces only relative efficiency.

Normally it devolves upon the engineer to improve industrial processes; the cost accountant measures results and so furnishes a basis for judgment of the adequacy of the new method. In his own province, however, the accountant is responsible for both the fitness of the procedure and the degree of efficiency of the force employed in the accounting.

It may so happen that a number of functions are dependent upon the accounting practice, in which case care is required in adjustment of the system of accounts.

This complicating condition arises in the central station industry. Here considerable forces of meter readers, bill and ledger clerks, cashier's clerks and collectors are simultaneously employed in the general work of billing and collecting. It is necessary that this work be distributed over the billing cycle (usually the calendar month) as the men are regularly employed for a particular class of work and must be kept busy. For any of these forces the formula of efficiency may be stated simply

$$\frac{\text{Cycle task}}{\text{Days in cycle}} = \text{Day's task for force}$$
$$\frac{\text{Day's task for force}}{\text{Number of men available}} = \text{Individual task}$$

Obviously, when such equal division of work is made possible the point of increase of force is peak cycle task for the force and

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not for the more or less frequently recurring individual peaks common to any system not delicately adjustable.

The solution of this particular problem of coördination rests on the establishment of a fixed routing of work, governing in each division of the work. The route is the common factor. It has been the usual practice in the lighting business to divide the territory served into blocks, reading, billing and collecting in each as a unit. Rapid growth in one section or a number of sections makes a new division necessary or results in unbalancing the system. Incidentally it usually happens that one street or avenue is cut by the boundaries of a number of blocks and the finding of an account for any particular address is made difficult and results in loss of time. Such a loss, while in the individual case trifling, cumulates to considerable amounts. Where personal accounts are allocated geographically it is of no little importance that they be written up in sequence throughout each street and avenue.

A little close examination of the question of routing suggests the characteristic of the ideal. Theoretically or ideally, the route should be circular; practically, it is sufficient that the route be endless, or in other words, that the end of any day's work shall be the beginning of the following day's work. With such a route any part of it may be apportioned to the men available and a high average day's work is made possible. Where with the block system men are scattered into different sections there always develops a wide divergence between maximum and minimum task. Especially with growing companies it is common to find frequent recurrence of the maximum days or overloads and consequent increase of force brought about by reapportionment of blocks or the assignment of extra men to the fractions or balances over normal task. Assuming, then, a fixed route following so far as practicable the general run of streets and avenues, and a close if not actual connection of the ends of the route, it is plain that the outside work, reading and collecting, is afforded every opportunity for efficiency.

The accounting work of necessity must follow the course of the meter reader. A nice apportionment of the office work would seem to demand either a loose leaf or card ledger. But here, as in any business, peculiarities of the business in some measure determine methods. Certain practical considerations which have

ruled in the matter dictate the use of bound books with numbered folios. Without attempting a detailed recital of the objections to the loose leaf system it might be well to note that with numbered folios the recording of a multitude of cash receipts can be very quickly and satisfactorily accomplished by simply assorting such receipts by ledger numbers and listing folios and amounts only. Assuming the bound volume as a condition precedent it follows logically that the smaller the unit volume, the more readily and equally may work be distributed.

Usually accounts are written up about every three years. During such a period great changes may occur in some sections of the territory served. Provisions must be made for this unstable condition. Generally it may be stated that maximum growth is determined by area and as maximum growth is the ultimate condition the accounting system if scientifically planned will adapt itself to every stage of development. It is necessary before writing up the accounts that certain fixed points or mile stones be marked in the route. If area is the logical basis for division of territory, street frontage is its practical equivalent. The total street frontage of the route being ascertained by measurement, equal subdivision into any desired number of sections is simple. These route sections become ledger districts. They may and will vary greatly in number of accounts, but ultimately they will tend to equalize.

If the unit volume or ledger section be limited to four hundred folios (representing almost the limit of billing capacity per man per day) the total of any day's work can be apportioned very fairly. Each ledger district being a unit, the ledger section folios are numbered 1 to 399, 400 to 799, 800 to 1199, etc. For journal work and periodic balances any number of sections which may be required for a ledger district may be handled as a unit.

The system thus briefly outlined is elastic and adaptable to any stress of growth whether uniform or spasmodic. The periodic rewriting of accounts may be distributed over a number of months to avoid undue pressure on the office force at such times. No redistricting or readjustment is necessary. The efficiency of a force of men depends quite as much on the routine established for them and the supervision furnished as it does on the individual ability of the men: in fact individual excellence may count for very little if not given proper facilities.

Cost Systematizing

BY AUGUST HILLER, C.P.A.

With the introduction of the efficiency engineer, the subject of cost accounting is receiving widespread attention in technical accounting and engineering magazines. The keener the competition the greater is the necessity of knowing exact cost of production, especially as a measure of comparative efficiency, in order to eliminate unnecessary and reduce necessary expenses, and to increase production without additional or only slightly increased expenses. Manufacturers, too, are beginning to recognize the value of accurate costs and comparative statistics, but it is only in the largest and most successful plants and "combines" that one finds, as a rule, the necessary data so collected, recorded and summarized as to be of the greatest utility. Much of the success of a manufacturer lies in proper interpretation and the wise foresight and judgment displayed in guiding future operations based on past experience. Herein lies the value of the "technical historian," or as he is usually termed, the cost accountant and the statistician.

Unfortunately, many manufacturers look upon the cost department as a necessary expense to be kept as low as possible by employing so-called cost clerks at \$50 or \$60 a month. This is a mistake, for no field of accounting is more difficult and complicated or requires more experience, training and deep thinking. Statistics are worthless unless they are correct and utilized to advantage in an intelligent way. The effect of such a policy is that, far from obtaining actual costs and statistics of value, such a cost department is apt to produce very misleading and sometimes financially fatal results. To save time, expense, trouble and money the overhead expenses are generally distributed on the basis that the pay roll value of productive labor of each job bears to the total value of all productive labor on all jobs, and this method too often is absolutely wrong, except under certain conditions which will be considered later.

In some cases one finds a fairly good system of collecting costs incomplete for want of proper methods of summarizing the

data in clear, concise, intelligible, comparative reports; and in other cases even where this is done, it is labor lost, because the information so collected and summarized is either not used at all, glanced at and then filed away, or it falls into unappreciative hands, incapable of properly interpreting and utilizing the information to the best future advantage. And this brings us to the troubles of the cost systematizer.

Very often the individual and the small public accounting firm are "auditors, accountants, cost experts, systematizers," and sometimes even "appraisers," like the old family doctor who could cure anything except his own rheumatism.

If one were interested in a mining property he would not employ a civil engineer to examine the property to ascertain its mineral value or the best methods of developing the ore body at the largest profit. Nor would one go to an osteopath for a surgical operation. This is an age of specialty—and accounting, especially systematizing, is of as wide a scope as the different kinds of business enterprises, each having its own peculiar and local problems and conditions, no two requiring the same methods and treatment. Therefore while a man may be an excellent auditor or accountant, he may be an absolute failure as a systematizer. Too often an accountant will advise and install a so-called cost system for a plant, which may be very excellent for office accounting records but absolutely impracticable in the shops. Please bear in mind that cost accounting is only indirectly related to bookkeeping records and is primarily a technical problem. A cost systematizer and chief cost accountant should understand and study the shop practice, requirements, methods and processes of manufacture. He should be fundamentally a practical and technical mechanical man, if not a mechanical engineer. It is this lack of knowledge of technical matters which has caused so many failures among public accountants in endeavoring to devise and instal in large plants practical, working cost systems valuable alike to the accountant, engineer, estimator and executive of a manufacturing establishment. Consequently, the public accountant is rapidly becoming a specialist in costs, accounting, auditing, systems, bank examinations, financial investigation, insurance, mining, railroad, legal work, or what not. Experience has proven that it is necessary to have the cost sys-

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tematizer cooperate with the efficiency engineer to install an efficient, practical cost system in a large plant, and that it is necessary to teach, observe, study and watch conditions, men and operation, to test and revise the methods of cost keeping, to get the best results. The system must suit the specific business, not *vice versa*.

The value of an efficient system of cost accounting can be outlined as follows:

1. To measure comparative efficiency of labor and machinery in production, as well as management, buying, selling, etc.
2. To furnish proper data for estimating accurately in meeting competition. This is very important in contracting, iron and steel and engineering work. Competition decides selling price, not cost of operation; but it is necessary to know what selling price is profitable.
3. To note fluctuations in the cost of producing duplicate orders and to trace their cause.
4. Periodically to ascertain gross profit on sales.
5. To know what particular products and departments pay best.
6. To know what particular parts required in assembling, say an engine, can be bought outside cheaper and better than can be produced in one's own shops.
7. To measure the saving in labor and other expenses or the increase in production effected by the installation of new machinery, processes, management or shop practices.
8. To indicate the mechanical equilibrium in production among various departments, so that one does not overproduce certain parts while others are unable to keep pace, resulting in delays in assembling the completed product and in filling orders promptly.
9. To indicate by the statistical comparative results wherein economies and improvements may be effected.
10. To show the comparative results in completed product made of raw material of different quality and price. (The cheapest material is sometimes the most expensive to use.)

These may be more clearly summarized as follows:

1. To reduce costs.

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2. To increase production.
3. To introduce machines for work done by hand.
4. To equalize the departmental output.
5. To guide the sales manager.
6. To guide the buyer.
7. To furnish basis for judging production and efficiency of workmen and machinery.
8. To furnish a basis for payment of just wages.
9. To secure systematic and methodical discipline.

In devising and installing a cost system the points to bear in mind are:

To show the detailed and complete cost of manufacturing the various staple and special products by processes and by departments in such manner as to show clearly the efficiency attained, as well as the cost.

To show the cost of each piece and class of work and, by monthly, statistical reports (if not daily or weekly where practical), the summary of results for each period so as to enable the management to base its future plans upon scientific and correct analysis of the business, and to obtain the greatest efficiency in the operation of a plant with the largest production and lowest cost comparable with quality desired and the needs and condition of the market. Daily costs help to discover inefficiency at once and remedy the cause.

To instruct the accounting and cost departments in the proper use of the system, and supervise its installation and operation, and to make such changes as may be necessary in the general accounting system, so that the latter may control the cost records and furnish the data necessary from this source.

PLAN OF OPERATION

A. The system should be simple, practical and efficient, and operated with a minimum of labor, time and expense, comparable with results obtained therefrom. In no case should it in any way delay production or the filling or shipping of orders.

1. Study the processes and departments of manufacture and the shop practice obtaining.
2. Devise the plan of operation.

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3. Rule the forms necessary to be printed, if any.
4. Write up the instructions for using the system.
5. Orally instruct and work with the cost department in starting the system in operation and supervise the same thereafter until satisfactory results are obtained.

B. So measure the productive efficiency of the various departments, month by month, as to enable the overhead to be distributed as between productive and idle capacity including:

1. The analysis of burden actually distributed.
2. The temporary carrying in suspense of that not distributed.
3. The segregation of stock and special order costs.
4. The comparisons of direct costs (labor, material, etc.) and indirect or overhead burden monthly with previous records, proportionate to production—noting increases and decreases.
5. The ascertainment of shop losses, their cause, remedy, accounting and relation to production.
6. Generally, the comparative measure of efficiency attained.
7. The study of present cost methods departmentally and their inter-relation, with the view of reducing labor thereon, covering method of handling time records. piece work records, pay rolls, material records, small tool records, factory expenses; allocation of burden; production, its ascertainment, and records appertaining thereto; manner of determining, automatically, work in progress—material, labor and overhead; and following this into general books.

The object of such an examination as that proposed is the betterment and simplification of the system obtaining, to assist in the control and supervision of departments. One should keep in view, as far as possible, a minimum cost of maintaining the system and increasing the efficiency of the departments, and should avail himself of the records already existing and the co-operation of the officials and employees.

Trade Union Accounting

By A. E. CARPENTER

There has recently been published under the joint authorship of the accountant and the secretary of the "Cloak and Skirt-makers' Unions" and the general secretary of the "International Ladies' Garment Workers Union," a pamphlet entitled *Trade Union Accounting Series No. I*. If this document is to be taken seriously and is indicative of accounting conditions in the head offices of labor organizations in the United States, it should be interesting to members of the public accounting profession and a matter for reflection by trade union officials.

The joint authors of the pamphlet represent two of the unions which are incorporated in the American Federation of Labor and, consequently, are entitled to consideration when they issue literature regarding accounting conditions affecting their own organizations, and also in respect to their opinion of accounting conditions in sister organizations included in the federation.

The pamphlet cannot be appreciated unless it has been read. The following is an excerpt from the foreword:

It is to be hoped that this little work—written by the very men who have made most of the constructive criticism and improving of the audits of various organizations, and having authoritative value on both the accounting and the organization side of the problem—will fill a much needed want and be accepted as a manual on this subject.

To many, some of the ideas contained are somewhat familiar. We should be rather chagrined were it otherwise, considering the time and energy we have spent in agitating for these ideas. Even those, however, who have been working with us will find much that is new to them. We have thought it best to include the old with the new, in order to make this handbook more complete and comprehensive.

The sub-title reads "How to make a union audit." It is stated that there are three parts to such an audit; first, checking the cash; second, verification of the stock; and, third, the financial report. Under part one of the audit the authors inform us that a certain union financial report contained a cash balance which "was purely theoretical and did not exist in fact." Again we are told that—

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Each day's receipts should always tally with the deposit in the bank. This is the most important point to be observed in any set of books. Two of the present writers have been agitating for quite some time to have this done in various local unions. No set of books, no matter how well or how accurately kept, can be called a real set of books if the receipts day by day or every other day do not tally with the bank deposits. It is the only way open for tracing certain kinds of errors and discrepancies which are bound to occur in all offices. It is the only way open for finding whether the deposit to be made in the bank is correct. It is the only way in which the secretary or his bookkeeper can tell whether they are mixing their own or any other moneys with that of the organization. * * * The auditor should make it a point that the bookkeeper reconcile his bank balance once a month regularly in writing on the back of the check book stub. Lest some readers look upon this as unnecessary harping on details, we would call attention to a case where quarterly audits have been made for over a year and the auditor has never so much as thought it necessary to see whether the bank statement shows *any* balance. * * * In other cases, the auditor has at some previous audit examined savings account pass books, but does not seem to think it necessary to continue doing so at each subsequent audit, never realizing that the money may, in the mean time, have been drawn. As for examining the bonds, we do not know of a single instance in which it has ever been done.

Under part two of the audit, we are told that—

In checking the item of how many stamps, etc., have been bought or received during the period, the auditor should not go by the local's books only. He should get a written statement from the international, or from whichever body the secretary obtains his stock. The reason for this is that a secretary may buy stock with his own funds and do a little business on his own account.

Under part three, of the audit, we read that—

In the case of a labor organization, the financial report should always be written in a wording simple enough for any layman to follow, yet clear and definite as to terminology.

By way of an appropriate conclusion to the 24 pages of the pamphlet, the following paragraph is given (the letter which is referred to therein is the usual letter of transmittal accompanying a report) :

As for the various details which such a letter of submittal may embody it is useless to list them, for the very simple and obvious reason that the entire matter hinges more on the personality of the auditor than on technique. For in the present state of union auditing the foreman (that is the secretary) most curiously hires his own superintendent (that is the auditor) and in this way practically also controls him. Under these circumstances, it would seem that the prime requisite for a union auditor is good business acumen rightly blended with rugged native honesty.

The foregoing quotations are illustrative of the text of the pamphlet and the reader may form his own conclusions as to

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the merits of the work and the need of missionary work among the labor organizations with respect to their accounting deficiencies.

Accounting in labor organizations should be a matter of prime importance if the officers of such organizations expect to exercise an efficient control over the finances. Adoption of uniform systems of accounting, together with periodical examinations by competent public accountants, would not only effect such a control but would tend to create a greater feeling of confidence by members in their leaders.

The American Federation of Labor has a membership of 1,800,000 and the four brotherhoods, comprising the railway labor associations, have over 500,000 members. So far as I know there is no report that shows the aggregate income and expenditure of these organizations. An idea of the amounts involved may however, be obtained by comparison with the figures taken from annual government reports of the trade unions of Great Britain and Ireland, where for the year 1910 from a membership slightly in excess of 2,000,000 the income was greater than \$15,000,000 and the expenditure of like amount.

The Accountant's Relation to Inventory*

BY HENRY C. MAGEE, C.P.A.

In verification of inventory the accountant's first duty is to see that "purchases account" has been charged with the amount of all invoices for goods which have been delivered to the division for which inventory is to be taken, and that credit has been given for all goods returned by the stockkeeper of the division—the stockkeeper in his turn seeing that all goods received are listed down to the last minute and that any goods returned to manufacturers and already listed shall be stricken from the list and credited in office to purchases. For this purpose a register must be kept of packages of goods turned over by the receiver of the stock to be checked off as bills are signed by the buyer and returned to the receiver as evidence of completed delivery. Sales account must be given credit for all goods sold up to the last minute of period under accounting and charges made to sales for any returns on such account—care being taken that any goods listed after inventory is commenced, and sold and credited to sales before inventory is completed, must be stricken from the list, and if sold goods are returned and charged back against sales before close of inventory, care must be taken to see that such goods are listed in the inventory.

A fruitful source of error is the charging and crediting of "last minute items" without corresponding listing or deduction from inventory and *vice versa*. The new manager of an old division is much troubled by bills saddled on his record although for goods received and listed or sold in the previous manager's business. Strictly speaking, such charges are not just, but proprietors frequently claim with fairly good logic that an adjustment is reached in the general average of conditions affecting each buyer's fiscal period. For example, a new buyer sometimes depreciates an old buyer's stock according to his own ideas rather than the facts. Nevertheless extraordinary instances of this kind require special consideration and agreement as such items really belong against surplus or deficit, as the case

* From the author's forthcoming work on Department Store Accounting.

may be, of previous operating account. Goods received during the last part of a fiscal period are sometimes not distributed until after inventory is closed unless they are needed for immediate trade requirements. Neither are the invoices charged to purchases—thus neither goods nor invoices are considered among the assets and liabilities of the business. This is proper if the goods are for the succeeding season but would not be proper if the merchandise belonged to a past season and was late delivered—the obligation to receive resting on the proprietor. The auditors should require evidence of outstanding obligations for merchandise, as it sometimes happens that there is an obligation on the part of a manager to receive merchandise which has been held off by mutual consent but which has depreciated below the agreed purchase price. Possibly conditions such as this offset each other but the question should be raised.

It is sometimes the custom for one manager to superintend the listing of another manager's stock instead of his own, but circumstances influence conditions.

An account should be opened on the general ledger entitled "Inventory," entering and closing the various inventories therein so that a comparison of total inventories may be shown by reference thereto. Separate accounts should be provided for sales and for purchases.

The accountant should see how the inventory has been taken, that is, that it has been taken in such manner as to make it possible to identify the record of the items with the items themselves. This is in itself so essential and so patent that it may be thought superfluous to speak of it; but it is a principle often disregarded. For example, I have known instances wherein the only sign that stock has been inventoried was a "memo" slip of paper with the word "taken" placed on a table to signify that goods thereon had been listed. If the "memo" blew off, the stock would in all probability be taken again. It will naturally be asked how the accountant is to know whether or not such mistakes have been made if called upon months afterward to make up a report in which that inventory plays a part when he did not assist in checking the inventory at the time when it was taken.

The answer is that he should inquire how the inventory was taken at the time of listing; what precautions were taken to

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prevent errors of omission or commission; and whether or not the accounts since inventory have been kept so as to render it possible to discover approximately the present stock-in-trade. If conditions proper to the making of such approximation had been neglected the report should so state.

There is always a relation between the inventory and the turn-over varying according to the business and then varying in each business according to the successful or otherwise conduct of that business and this variation should be closely investigated. An accumulation of stock-in-trade without a corresponding increase in business simply means at the best that stock has been bought that cannot be turned into either finished product (if raw material) or into sales (if finished goods) and at the worst it means deliberately padding the inventory. Merchants often think they can develop profits merely by taking goods on the shelves at marked prices notwithstanding that such goods may be out of season or style—in fact may be souvenirs, instead of merchandise.

Another way of padding the inventory is by baldly increasing the quantity figures and prices of the inventory to show an apparent profit for a particular period. This is surely “sowing the wind” and the whirlwind harvest will not be long delayed.

The decision of the Irish court of appeal in the case of the *Irish Woollen Company Ltd. vs. Tyson et al.* in 1890 (see *Encyclopedia of Accounting* vol. 1 page 182, article by LAWRENCE R. DICKSEE) in which it was sought to make the auditor liable, *inter alia*, for the overstating of the value of the stock-in-trade, held (following the *Kingston Cotton Mills* case) that the auditor was not responsible for the inventory. Referring to the account of the *Kingston Cotton Mills Company Ltd.* case (1896) we find the trial judge, MR. JUSTICE VAUGHN WILLIAMS, decided against the auditor, holding him guilty of negligence in relying on the certificate of the managing director as to the amount and value of the stock-in-trade, even though he definitely stated to the shareholders the source of information.

The decision in regard to the stock-in-trade was, however, overruled by the court of appeal in the same year, *viz.*: 1896, LORD JUSTICE LOPES in the course of his judgment made some very interesting remarks upon the duties of auditors. He said in part:

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It is the duty of an auditor to bring to bear on the work he has to perform that skill, care and caution which a reasonably competent, careful and cautious auditor would use. What is reasonable skill, care and caution must depend on the particular circumstances of each case. An auditor is not bound to be a detective, or, as was said, to approach his work with suspicion, or with a foregone conclusion that there is something wrong. He is a watch-dog, but not a blood-hound. He is justified in believing tried servants of the company in whom confidence is placed by the company. He is entitled to assume that they are honest and to rely on their representations provided he takes reasonable care. If there is anything calculated to excite suspicion he should probe it to the bottom, but in the absence of anything of that kind he is only bound to be reasonably cautious and careful. I should be sorry to see the liability of auditors extended any further than *in re. The London and General Bank*, in which the auditors had been held for not taking adequate steps to see that the shareholders were made cognizant of the contents of a special report submitted to the directors but not included on the balance sheet for the stockholders. Indeed I only assented to that decision on account of the inconsistency of the special statement with the stockholders' balance sheet, which satisfied my mind that the auditors deliberately concealed that from the shareholders which they had communicated to the directors. Auditors must not be made liable for not tracking out ingenious and carefully laid schemes of fraud when there is nothing to arouse their suspicion, and when those frauds are perpetrated by tried servants of the company and are undetected for years by the directors. So to hold would make the position of an auditor intolerable.

JUSTICE LINDLEY, also in the case, affirmed:

I pass now to consider the complaint made against the auditors in this particular case. The complaint is that they failed to detect certain frauds. There is no charge of dishonesty on the part of the auditors. They did not certify or pass anything which they did not honestly believe to be true. It is said, however, that they were culpably careless. The circumstances are as follows: For several years frauds were committed by the manager, who in order to bolster up the company and make it appear flourishing when it was the reverse, deliberately exaggerated both the quantities and value of the cotton and yarn in the company's mills. He did this at the end of the years 1890, 1891, 1892 and 1893. There was no book or account (except the stock journal, to which I will refer presently) showing the quantity or value of the cotton or yarn in the mill at any one time. It would not be easy to keep such a book nor is it wanted for ordinary purposes. There is considerable waste (twenty or twenty-five per cent on the average) in the manufacture of yarn from cotton, and the market price of both cotton and yarn are subject to great fluctuations. The balance sheet of each year contained in the asset side entries of the value of the stock-in-trade at the end of the year, and those entries were stated to be as per manager's certificate. The auditors took the entry of the stock-in-trade at the beginning of the year from the last preceding balance sheet, and they took the value of the stock-in-trade at the end of the year from the stock journal. This book contained a series of accounts under various heads purporting to show the quantities and values of the company's stock-in-trade at the end of each year, and a summary of all the accounts showing the total value of such stock-in-trade. The summary was signed by the manager, and the value as shown by it was adopted by the auditors, and was inserted as an asset in the balance sheet, but as per manager's certificate.

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The summary always corresponded with the amounts summarized, and the auditors ascertained that this was the case. But they did not examine further into the accuracy of the accounts summarized. The auditors did not profess to guarantee the correctness of this item. They assumed no responsibility for it. They took the item from the manager and the entry in the balance sheet showed that they did so. I confess that I cannot see that their omission to check the returns was a breach of duty to the company. It is no part of an auditor's duty to take stock. No one contends that it is. He must rely on other people for the details of the stock-in-trade in hand. In the case of a cotton mill he must rely on some skilled person for the material necessary to enable him to enter the stock-in-trade at its proper value in the balance sheet. In this case the auditors relied on the manager. He was a man of high character and unquestioned competence. He was trusted by everyone who knew him. The learned judge has held that the directors were not to be blamed for trusting him. The auditors had no suspicion that he was not to be trusted to give accurate information as to stock-in-trade in hand and they trusted him accordingly in that matter. But it is said they ought not to have done so, and for this reason. The stock journal showed the quantities—that is the weight in pounds—of the cotton and yarn at the end of each year. Other books showed the quantities of cotton bought during the year. If these books had been compared by the auditors they would have found that the quantity of cotton and yarn in hand at the end of the year ought to be much less than the quantity shown in the stock journal and so much less that the stock journal could not be right, or, at all events was so abnormally large as to excite suspicion and demand further inquiry. This is the view taken by the learned judge. But although it is no doubt true that such a process might have been gone through and that if gone through the fraud would have been discovered, can it be truly said that the auditors were wanting in reasonable care in not thinking it necessary to test the managing director's returns? I cannot bring myself to think that they were, nor do I think that any jury of business men would take a different view. It is not sufficient to say that the frauds must have been detected if the entries in the books had been put together in a way which never occurred to anyone before suspicion was aroused. The question is whether, no suspicion of anything wrong being entertained, there was a want of reasonable care on the part of the auditors in relying on the returns made by a competent and trusted expert relating to matter on which information from such a person was essential. I cannot think there was. The manager had no apparent conflict between his interest and his duty. His position was not similar to that of a cashier who has to account for the cash which he receives and whose own account for his receipts and payments could not reasonably be taken by an auditor without further inquiry. The auditor's duty is not so onerous as the learned judge has held it to be: The order appealed from must be discharged with costs.

These extracts refer to legal responsibility but it is significant that the trial judge held the auditor legally responsible, thus upholding the plaintiff's view of the matter, even if the decision was reversed. The fact seems to be that much more is to be expected of an auditor by his clients than a strict interpretation of the law will sustain and I am glad that it is so because it widens the scope of an auditor's responsibilities and helps to place the profession in the van of modern vocations.

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Following my previous remarks on the subject of turn-over, I note that one of the authorities, from whose article I have taken JUSTICE LINDLEY's opinion (MR. JOHN A. WALBANK) brings up the question of proportioning stock-in-trade to turn-over and cites the following from the accounts of the Kingston Cotton Mills.

Stock at 31st December		Sales for year
1889	£29,760	£119,727
1890	44,482	122,694
1891	53,918	106,382
1892	60,966	91,694

Per cent Gross Profit		
1889	29.95	£119,727
1890	29.62	122,694
1891	36.53	106,382
1892	38.93	91,694

It will be recalled that the managing director exaggerated the quantities and prices at the end of 1890-1891-1892-1893. Taking Mr. WALBANK's figures I have figured out the number of turn-overs of stock :

1899	4.02
1890	2.76
1891	1.97
1892	1.50

The enormous decrease in stock turn-over and the increase of stock show on their face that there is something utterly wrong. The following figures show the facts plainly :

	Inventory	Turnover of stock	Per cent gross profits on sales	Amount of gross profit	Per cent of gross profit to amount invested as per inventory
1889	£29,760	4.02	29.95	£35,858	120.40
1890	44,482	2.76	29.62	36,342	81.75
1891	53,918	1.97	36.43	38,755	71.77
1892	60,966	1.50	38.93	35,696	58.40

I have calculated the profit on the investment from the inventory, whereas it should be on the average of the stock-in-trade throughout the year, but the variation would apply to each year in about the same proportions so that the above example will give a fair idea of facts. Furthermore, no one who carries too high

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stocks throughout the whole year can expect a proper inventory, any more than one who carries a load of bad habits throughout the year can expect to unload on the first of January.

It will be noted that notwithstanding the managing director's manipulation he barely maintained his amount of gross profit; in fact, in 1892 he fell below 1889's amount of gross profit (even though his percentage of gross profit to sales showed an increase) in spite of the fact that from his own showing it took more than twice as much stock to do three-quarters of his former business, and furthermore, he cut his rate of profit on investment more than in half. The expense of carrying this stock would operate materially to reduce the net profit and the fraud was probably discovered because the manager was calling for more material while his record of stock-in-trade showed an abundance of goods on hand.

In my opinion the inventory of the stock-in-trade should be taken in accordance with the most approved methods of each line of business, the record being sectionalized, so that a check may be made at almost any time between fiscal periods. A comparison by sections should also be made showing the rise and fall between the corresponding seasons of different fiscal periods as well as between the different months or weeks of the same fiscal period, so that the relation between stock-in-trade and total turn-over (sales) may be readily observed.

The turn-over is generally reckoned by dividing the average stock at cost into the total sale instead of purchases. As comparative profits and expenses are figured for reasons of convenience on the basis of sales, the turn-over is also taken on that basis and the result is the same in either case when brought down to gross profit.

Where the total inventory is large the sectionalizing not only of the inventory but also of the purchases and sales is a prime necessity as by that means can undue increases in stocks be best discerned, and if the turn-over figures are carried out to two or three decimals even slight variations are quickly noted. All this information should be at the command of each division manager and his lieutenants and frequent comparisons should be made for the benefit of all concerned.

An estimated inventory is often kept by adding to the physical inventory taken at the beginning of the period the purchases since

and then deducting the estimated cost of the goods sold. The amount of profit realized from the sale of goods varies according to the season, some parts of the year being more profitable than others, by reason of better prices and better volume—thus greatly reducing the burden of the “overhead.” However, with profit conditions agreeing a very good guide can be provided by means of a current estimated inventory but it never takes the place of a vigilant personal supervision of the goods themselves.

The aim of the best merchants and manufacturers is to have material on hand only in such quantities as are necessary for rapid consumption. This rule should not be departed from without due consideration of four possible factors, *viz.*: Interest on the outlay for raw material and labor; insurance and storage charges; depreciation from all sources especially changes in machinery, pattern, style and rust, moth, etc.; and theft.

The rule in taking inventory is to list at cost or market price whichever is the lower. A vigilant stockkeeper does not wait for inventory time but is repeatedly going through his stocks to see where accumulations lie as well as where short lines are, reporting to superintendent or buyer as to the hills and hollows. The golden mean is nowhere so necessary as in stockkeeping. Notwithstanding the importance of good stockkeeping it is probably the most neglected single division of every business and its lack is probably responsible for nearly all the failures in manufacturing and mercantile business.

When inventory is taken at invoice price a reserve should be provided equal to the cash discount deducted at payment for inventoried goods—the undiscounted—unpaid—invoices to be deducted from the amount of inventory before figuring the reserve. The gross profit is often taken by considering invoice price as cost. The cash discount is shown as a separate profit for each division. The reason for deducting the amount of the unpaid invoices from the amount of the inventory is because no credit for cash discount should be taken until earned and that part of the inventory covered by the unpaid bills should be considered as costing the amount named on face of the invoice.

Merchandise or raw material that does not turn quickly is as a rule marketed at a sacrifice and the money reinvested in turnable goods. Of course different lines of goods turn at different rates and net profits generally vary in proportion, but each line

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has its approximate rate and it becomes necessary to study the situation with the utmost care. A good method is to take the inventory on loose sheets requisitioned from the statistical department. In large establishments this is a special bureau, but the same principle may be employed if the duties of statistician, bookkeeper, entry clerk and stenographer are performed by the one person.

Each department of the business should be given a number beginning with 1. Each department should have as many sheets as required and every sheet should bear the number of the department as well as the number of the sheet. For example, department No. 1 uses 100 sheets; the first would be numbered "Dept. No. 1 sheet No. 1" the second, "Dept. No. 1 sheet No. 2," and so on in consecutive order, each line of each sheet also being numbered commencing with No. 1. The lines of each sheet are numbered so as to identify the entries in cases of errors or other need. Corrections of the inventory after the sheets have been turned into the statistical department are made on correction sheets provided for the purpose. For example, inventory sheet No. 10 Dept. No. 1 bears the following record, as turned into the statistical department:

DEPARTMENT NO. 1 SHEET NO. 10

Line No.	Lot No.	Quantity	Yards gross or pieces	General description	Invoice cost per unit	Total cost	Selling price per unit	Total Selling price
1	107	10		Style No. 875 Beaver Overalls	30 00	* 200 00	50 00	500 00

* See correction sheet.

The correction would be noted on the correction sheet of Department No. 1 as follows:

CORRECTION, DEPARTMENT NO. 1

Sheet No.	Line No.	Cost or value reported	Cost or value should be	Retail reported	Retail should be
10	1	200 00	300 00		

The total of the corrections are then made up and the net deducted from or added to the reported amount.

A register should be kept by the statistician showing the number of sheets given to each department. These should be

checked back, any spoiled sheets to be marked void and turned in immediately so that the register may be correspondingly marked.

If the inventory is taken in duplicate one copy is sent to the statistician as soon as the goods are listed and proved. to be extended. The department extends its copy and forwards it to the statistician where the result is compared by him with the result obtained by extending and totaling the first copy.

In other instances the inventory is taken only in original, but there is a perforated margin to the sheet numbered the same as the body of the sheet and ruled for a separate extension of prices. The extensions of the department taking the inventory are made on this perforated margin leaving blank the extension column in the body of the sheet. When the inventory is extended on the marginal strips by the departments the sheets are sent to the statistician, who removes the strips, filing them by department and then by number in each department. Then the sheets are again extended, this time in the regular extension column of the sheet, under the direction of the statistician and sorted by department and number, and a comparison is made to see whether or not the two results tally.

In checking cost of stock-in-trade, cost may be cost on shelves where stock has been opened, checked, examined, marked and shelved; and when in ware-house then cost up to that stage. In both cases cost includes buying, transporting and receiving charges. Some do not include freight and expressage even when directly paid by the buyer, preferring to have that margin as unstated reserve; but no amount of cost is permissible beyond that of replacement at time of inventory in the condition in which stock then is.

One of the advantages of the first plan—that is taking inventory in duplicate—is that the sheets may be sent by sections to the statistician as soon as the goods are listed, to be verified while the balance of the inventory is taken. Better time will be made throughout. The sheets for each division should be received and acknowledged by the head of such division and an account kept by him of the number of sheets charged to him by the statistician. He in turn should keep record of his distribution of the sheets to the sectional heads of his division. Each sectional head should designate each subdivision of his section

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by letter, placing a fixed mark against each subdivision and then list his stock accordingly.

For example, the manager of department No. 1 receives 100 sheets for his inventory, numbered for his department and from 1 to 100 inclusive. He has ten lieutenants to whom he in turn delivers the sheets taking proper record thereof under the captions section No. 1, 2, 3, etc., up to 10. Each lieutenant before he begins to take stock marks his subdivisions A B C, etc. The designations are not to be removed from the subdivisions without due warrant.

Whether the inventory is a final or merely a current one makes considerable difference. If current it is often taken currently as much as a week or more before closing period and deductions made of individual items or of sales during the intervening time, after deducting estimated margin of profit from said sales. In the latter case if all the parties continue it adjusts itself, provided no difference in the order of distribution of profits is permitted.

As each lot of goods is listed the names of the "calling" and "entering" clerk should be signed by each in the space provided on the inventory sheet which should be followed by the "caller back" and the "entry checker" both signing the inventory sheets in the spaces provided for the signatures.

In some instances in taking inventory in department stores a season letter is placed on each price ticket to indicate the season or year of purchase. Columns are ruled on the inventory sheet to take in the current and several past seasons, goods purchased prior to which are entered in the sundry column. Thus for instance in an inventory taken on December 31, 1913, the present season might be taken as "E," season "D" being the first half of 1913, "C" the latter half of 1912, "B" the first half of 1912. The goods purchased prior to 1912 to be entered in column "A" which would be headed "'A' and prior seasons."

A summary is made of each season's goods showing how long they have been in the establishment. The management can thus see at a glance how much old stock each department manager is carrying. However, in a large retail establishment a vigilant stockkeeper should not allow merchandise to accumulate from year to year because the depreciation, interest and storage charges, not to mention theft, would naturally eat up any reason-

ably expected profit in carrying the goods over. (Of course it often happens that goods must be delivered in advance of a season in order to be ready in time for their proper season. For instance, goods imported from abroad may be treated specially.)

It may be said that a buyer or other subordinate may change the season letters rather than show record of old stock. Of course he can, and he can also change the quantity and price records, but he cannot capitalize such changes and pay dividends on such capitalization.

By sectionalizing a comparison may be made in such detail as may be required, and the overlooking of merchandise to be listed may be reduced to a minimum. It also shows at a glance the investment in the different departments, sections and subdivisions of the sections and would be apt to show up excess of stock as well as padding of figures. If there should be a mistake in listing or non listing, it is much easier to trace it by the sectional method. It often saves the taking of stocks a second time. If they are taken a second time a comparison, section by section, of the second taking with the first will help to shorten the labor of verification.

No departure should be made from the regular method of taking inventory without the written approval of the financial management as a change in method of listing goods (for example, from "regular" to "net" or from "net" to "regular") may have the effect of changing the apparent profits for a period and might lead to the declaration of dividends not earned.

Goods returned (outgoing) at or about inventory time, if already listed, should be marked off list and the amount deducted from accounts payable. For incoming merchandise and accounts receivable the process should be reversed.

Goods on memorandum and "C. O. D." sales require most careful consideration and checking especially in the matter of incoming merchandise. It sometimes happens that buyers and division managers think they can manipulate the records by obtaining goods on "memo" and selling therefrom, thus showing better sales for a period without apparent increase in stock; but the day of reckoning always comes, and in the case of attempted manipulation always at the worst time.

Goods received on "memo" should be specially recorded and checked—and that frequently—so that there may be continuous

The Accountant's Relation to Inventory

supervision of this liability, and the receiving room records should not be closed until a regular invoice is passed. It is always the practice to do this checking at time of taking inventory, but an accountant should look with suspicion—at least of carelessness—on a manager who allows goods to come in on “memo” and make current sales therefrom, with settlement only at fiscal periods.

Outgoing goods on “memo” are added to the stock records of each division. This should be done by each division manager and checked from the record in the office. It is generally done by taking the total of outstanding (outgoing) “memo” merchandise and adding the amount to the last inventory sheet—referring in the entry to the authorizing voucher which should be signed by the “memo” bookkeeper.

Goods sold “C. O. D.,” for which return has not been made at inventory closing, should be credited to “sales account” as “open C. O. D. sales” and the entry cancelled *per contra* on the first day of the new period—as the sales account is credited by cash when the payment is made.

Goods sometimes needed for stock at inventory time but for which no invoice has been received may be taken on a *pro forma* invoice, so marked as to be held to check against regular invoice, so that no credit will be taken for sales without a corresponding liability; but a record of the *pro forma* invoice should be kept in the receiving room so that it may be returned and checked against the regular invoice.

A glance over each division of the inventory will indicate to the accountant what tests he wishes to make to assure himself of general correctness, bearing in mind that great diversity of lines of merchandise always means high stocks, often not properly “sized.” A test of prices and quantities may be checked by examination of the stocks and checking the prices and quantities in such cases, but a physical survey of all stocks should always be made by the accountant where he values an inventory.

A perpetual inventory is kept by placing in code on the sale schedules the cost as well as selling prices; deducting the amount from the inventory plus the purchases at cost and selling prices the remainder should be the amount of goods on hand, at both cost and retail, barring loss due to theft and any difference due to clerical errors.

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In a large retail establishment this may seem to be troublesome but I have been credibly informed by an officer of an establishment doing a business of several millions of dollars a year, that this plan has been followed with marked success and especially in those cases wherein a temporary and particular supervision is required.

The sectionalizing of inventories is often carried to great detail, becoming more and more practicable as advancement is made in the manufacture of accounting machinery which tabulates by electricity with great speed and accuracy. Therefore the same allowance as that mentioned is not to be expected in future from the "bench," and it should not be forgotten that the cases cited herein are nearly twenty years old. Much more responsibility rests on the profession today and much is expected of us. We should always endeavor to be in advance of what is expected.

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EDITORIAL

A Long Step Forward and Upward

The regents of the university of the state of New York recently adopted the following rule relative to the practice requirements for applicants for the C. P. A. examination in New York state:

Section 426a Professional experience required.

"A candidate must present satisfactory evidence of five years' experience in the practice of accountancy at least two of which shall have been in the employ of a certified public accountant in active practice, in no less grade than that of a junior accountant."

It is evident that the change embodied in the foregoing rule will have a far-reaching effect upon the development of the profession of accountancy. To begin with it ought to have the effect of eliminating a large proportion of the unqualified applicants who now sit for the examination and who must inevitably fail in any true test. If the new rule produces this result, as it seems reasonable to expect it will, a great good will be accomplished.

It goes further, however, than that. The stamp of a profession is made indelible upon accountancy. Not only must an

applicant come with a reasonable amount of preliminary education, but he must bring with him as a prerequisite to examination the knowledge and experience gained through a long period of technical study and work, at least two years of which have been in the office of a certified public accountant. The stipulation that these two years' work must be, at least, of a junior accountant grade is to be especially commended. Mere service in an office position will not and should not be accepted. This requirement will rule out a large number of men whose chief desire has been to secure a C. P. A. certificate as a means of obtaining a larger salary from employers who are not practising accountants. Such aspirants for the C. P. A. ranks do not contribute, in any large measure, to professional well-being, and henceforth they will perforce seek the attainment of their entirely proper ambitions through other channels. While the number of applicants for examination will, no doubt, be reduced in the future, we venture to predict that the revised rule will encourage to sit the large number of young men in accountants' offices who have heretofore hesitated to undertake the examination. These men who are devoting their lives to professional work are the ones to whom a C. P. A. certificate makes its true appeal and their knowledge of the theory and practice of accounting should now receive its proper measure of recognition.

One modification of the amended rule we think would be both just and desirable. We refer to the growing number of young men who are training for accountancy in schools of the highest type, such as the graduate school of business administration at Harvard—to take an illustration at a safe distance. These men who have done advanced work after completing their college course ought, we suggest, to be admitted to the C. P. A. examination after not less than three years' satisfactory work in a certified public accountant's office.

Profound as the effect of the new rule is bound to be upon the profession in New York, its beneficial results are certain to be felt in other states and we hope to see a wide-spread movement for the amendment of the rules governing the admission of candidates to C. P. A. examinations. We sincerely trust that the example set in New York will be speedily followed in other states so that in the near future the C. P. A. standards through-

Editorial

out the country will require an adequate and a reasonably uniform measure of education and professional training.

Bright Prospects of Accountancy

In a recent interview with MR. HOWARD ELLIOTT, the newly appointed president of the New York, New Haven & Hartford Railroad Company, he is reported as stating that the signal system of the line was being investigated by a committee of experts and as adding, by way of explanation, "just as your books are examined by accountants to make sure you are right." A few years ago a president of an important company would have been more likely to think that the employment of accountants was a thing to be explained by illustration from other fields of activity and the change in sentiment which has taken place in recent years is happily illustrated in the incident cited.

While there can be no question as to the remarkable development of the profession in recent years, it is perhaps even more a matter of congratulation that the prospects of still greater development in the future are so favorable.

The response received to the inquiries addressed by the American Association of Public Accountants to bankers throughout the country in regard to the submission of certified statements by borrowers clearly foreshadows a large increase in accountants' work in this field.

The income tax law is bound to result in the engagement of accountants by many corporations and individuals who have not in the past availed themselves of such services and even though such engagements may in the first instance be limited to purely income tax questions they will undoubtedly lead in many cases to a realization by the clients of the wider usefulness of the work of accountants and so to more extensive instructions.

It is to be hoped that every accountant will realize the increased responsibility which accompanies this increased opportunity. The profession as a whole is in a sense still upon trial. The business community is coming to realize more and more fully that the profession can play a very useful part if its members are equal to the responsibility they are willing to assume.

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Every failure to measure up to this responsibility on the part of an individual affects the whole profession and for this reason every practitioner has a direct interest in anything which tends to elevate the standard not only of his own work but of the work of the whole profession. It follows that the time which even the busiest accountant may devote to educational work of any kind is time well spent, even from the narrowest standpoint of personal interest, and it is just at this time when the profession is expanding so rapidly that this educational work is most needed and has the greatest value.

Another welcome feature of the increasing recognition of the value of accountants' work is that it tends to remove what little justification there ever was for the methods employed by many accountants in the past to advertise their merits and to secure business—methods which, whatever may be said as to their efficiency, were undeniably lacking in dignity and professional quality. It can scarcely now be claimed that it is necessary to advertise in order to impress on the business public the value of accountants' services in general, and the only object in advertising must therefore be to bring to the attention of the public the name and merits of the advertiser in particular. It is to be hoped that the committee to be appointed in accordance with a resolution of the last annual meeting will be able to develop some effective scheme for dealing with this feature in which the accountancy profession lags so far behind the legal and the medical professions.

The year 1914 opens with the fairest promise for accountants, and should be a year of noteworthy advance if each member of the profession will earnestly resolve that his share of the work to be done shall be secured with dignity and performed with impartiality and efficiency.

Department of Practical Accounting

CONDUCTED BY JOHN R. WILDMAN, M.S.C., C.P.A.

PROBLEM No. 24 (DEMONSTRATION)

Arthur Dixon, the trustee for W. B. Tilesen, proceeded to wind up the affairs of the bankrupt and effected the following transactions: Land and buildings (subject to the mortgage, and interest of \$6,371.54, and taxes accrued of \$1,528.50) were sold for \$175,000; the machinery and tools brought \$80,000; auto trucks, \$1,500; furniture and fixtures, \$975; merchandise, \$15,486.27; accounts receivable, \$22,248.74; 150 shares L. & N. stock sold at $162\frac{1}{2}-1/8$; 150 shares N. Y. Central sold by creditor at $152\frac{3}{4}-1/8$; 50 shares sold by trustee at $152\frac{1}{8}-1/8$; insurance unexpired, \$63.75; lots Ampere, N. J., sold for \$1,200; life insurance policy, \$3,017.32; Altair Wheel stock was a total loss; interest accrued on the secured notes payable when settled was \$1,005.81; accrued interest on notes receivable when collected, \$257.86; there were 87 creditors; liquidation completed; office expenses of receiver, \$5,321.45; stenographers' and witness fees, \$575 (loan Altair Wheel Co. produced \$72,000); trustee's fees, \$2,700; referee's fees, \$2,300.

Prepare:

Skeleton ledger accounts showing books of the trustee. Show the percentage which unsecured creditors received on their claims.

SOLUTION TO PROBLEM No. 24 (DEMONSTRATION)

Land		Auto Trucks	
\$25,000.00	\$25,000.00	\$15,000.00	\$12,500.00
			1,500.00
			1,000.00
Buildings			
\$175,000.00	\$175,000.00	\$15,000.00	\$15,000.00
Machinery and Tools		Furniture and Fixtures	
\$187,500.00	\$ 45,477.00	\$8,000.00	\$4,000.00
	80,000.00		975.00
	62,023.00		3,025.00
\$187,500.00	\$187,500.00	\$8,000.00	\$8,000.00

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Stock—Altair Wheel Co.		Unexpired Insurance	
\$45,000.00	\$45,000.00	\$300.00	\$63.75 236.25
N. Y. Central Stock		\$300.00	\$300.00
\$26,225.00 4,268.75	\$22,893.75 7,600.00	Lots—Ampere, N. J.	
\$30,493.75	\$30,493.75	\$1,000.00 200.00	\$1,200.00
Merchandise—Inventory		\$1,200.00	\$1,200.00
\$20,000.00	\$15,486.27 4,513.73	Life Insurance Policy	
\$20,000.00	\$20,000.00	\$3,000.00 17.32	\$3,017.32
Cash in Hand		\$3,017.32	\$3,017.32
\$752.00	\$752.00	Bond & Mtge on Land & Buildings	
Cash in Bank		\$125,000.00	\$125,000.00
\$ 1,856.00 752.00 42,099.96 120,210.01 15,257.86 1,887.94 7,600.00 76,281.07	\$ 10,896.45 3,000.00 275.00 Bal. 251,773.39	Int. Acc. on Bond and Mtge.	
\$265,944.84	\$265,944.84	\$6,371.54	\$6,250.00 121.54
\$251,773.39		\$6,371.54	\$6,371.54
Accounts Receivable		Taxes Accrued	
\$27,843.00	\$22,248.74 5,594.26	\$1,528.50	\$1,500.00 28.50
\$27,843.00	27,843.00	\$1,528.50	\$1,528.50
Loan Altair Wheel Co.		Wages Accrued	
\$90,000.00	\$72,000.00 18,000.00	\$275.00	\$275.00
\$90,000.00	\$90,000.00	Accounts Payable	
Notes Receivable		\$3,000.00 Bal. \$172,725.00	\$175,725.00
\$15,000.00	\$15,000.00	\$175,725.00	\$175,725.00
Acc. Int. On Notes Rec.			\$172,725.00
\$251.00	\$251.00	Notes Payable	
		\$ 20,000.00 Bal. 180,000.00	\$200,000.00
		\$200,000.00	\$200,000.00
			\$180,000.00

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Int. Acc. on Notes Payable		W. B. Tleson, Capital	
\$ 1,000.00	\$12,000.00	\$135,951.61	\$20,000.00
Bal. 11,000.00			3,550.00
			Bal. 112,401.61
\$12,000.00	\$12,000.00	\$135,951.61	\$135,951.61
	\$11,000.00	\$112,401.61	
Reserve for Depn. of Bldgs.		Personal and Household Debts	
\$35,000.00	\$35,000.00		\$450.00
Reserve for Depn. Mach. & Tools		Vendee	
\$45,477.00	\$45,477.00	\$175,000.00	\$175,000.00
Reserve for Depn. Auto Trucks		Land and Buildings	
\$12,500.00	\$12,500.00	\$200,000.00	\$175,000.00
		10,000.00	35,000.00
Reserve for Depn. Furn. & Fixt.		\$210,000.00	\$210,000.00
\$4,000.00	\$4,000.00		
		Fees and Expenses of Receivership	
		\$10,896.45	\$10,896.45

REALIZATION AND LIQUIDATION ACCOUNT

Int. on B/M	\$ 121.54	Int. on Notes rec.	\$ 6.86
Int. on notes pay.....	5.81	Land & bldgs.	10,000.00
Taxes	28.50	N. Y. Central stock	4,268.75
Mach. & tools	62,023.00	Lots—Ampere,	200.00
Auto trucks	1,000.00	Life Ins. policy	17.32
Furn. & fixt.	3,025.00	W. B. Tleson, capital ..	135,951.61
Stock—Altair Wheel Co.	45,000.00		
Merchandise	4,513.73		
Accounts rec.	5,594.26		
Loan—Altair W. Wheel			
Co.	18,000.00		
Unexpired ins.	236.25		
Fees & exp. of receiver..	10,896.45		
	<u>\$150,444.54</u>		<u>\$150,444.54</u>

JOURNAL ENTRIES

Lots—Ampere, New Jersey	\$ 1,000.00		
Life Insurance Policy	3,000.00		
To Personal and Household Debts		\$ 450.00	
W. B. Tleson, capital		3,550.00	
To place the personal assets and liabilities of W. B. Tleson on the books of the business.			
Cash in bank	752.00		
To Cash in hand			752.00

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Vendee	175,000.00	
To Land and buildings		175,000.00
For sale price of land and buildings.		
Land and buildings	200,000.00	
To Land		25,000.00
Buildings		175,000.00
To consolidate the two accounts		
Reserve for depreciation of bldgs.	35,000.00	
To Land and buildings		35,000.00
To offset the cost of land and buildings by the reserve for depreciation of buildings.		
Realization and liquidation account	150.04	
To Interest accrued on B/M		121.54
Taxes accrued		28.50
For accrual of interest and taxes for the period from June 30 to date of sale.		
Bond and mortgage on land and bldgs.	125,000.00	
Int. accrued on bond and mtge.	6,371.54	
Taxes accrued	1,528.50	
Cash	42,099.96	
To Vendee		175,000.00
To record settlement by vendee.		
Reserve for depreciation—Mach. and tools	45,477.00	
" " " auto trucks	12,500.00	
" " " furn. and fixt.	4,000.00	
To Machinery and tools		45,477.00
Auto trucks		12,500.00
Furniture and fixtures		4,000.00
To close out reserves and set up book values of above assets.		
Cash	120,210.01	
To Machinery and tools		80,000.00
Auto trucks		1,500.00
Furniture and fixtures		975.00
Merchandise		15,486.27
Accounts receivable		22,248.74
Cash	15,257.86	
To Notes receivable		15,000.00
Accrued int. on notes receiv.		251.00
Real. and liq. a/c (acc. int. June 30 to date of sale)		6.86
For sale of 150 shares L. & N stock at 162½—1/8	\$24,356.25	
Amount paid by broker to maker of notes	9,098.39	
Amount paid to Receiver	<u>\$15,257.86</u>	
Notes payable	20,000.00	
Interest acc. on notes payable	1,000.00	
Real. and liq. a/c ,acc. int. June 30 to date of sale)		5.81

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Cash	1,887.94	
To New York Central stock		22,893.75
For sale of 150 shares N. Y. Central stock at $152\frac{3}{4}-1/8$	\$22,893.75	
Less deducted by broker for creditor	21,005.81	
Balance paid to receiver	<u>\$ 1,877.94</u>	
Cash	7,600.00	
To New York Central stock		7,600.00
For 50 shares of N. Y. Central stock sold by the trustees at $152\frac{1}{8}-1/8$		
Cash	76,281.07	
To Unexpired insurance		63.75
Lots—Ampere, N. J.		1,200.00
Life insurance policy		3,017.32
Loan—Altair Wheel Co.		72,000.00
Fees and expenses of receivership	10,896.45	
To Cash		10,896.45
Office expenses	\$ 5,321.45	
Stenographers' and witness fees	575.00	
Trustee's fees	2,700.00	
Referee's fees	2,300.00	
	<u>\$10,896.45</u>	
Accounts payable	3,000.00	
To Cash		3,000.00
For claim of \$3,000 covered by a chattel mortgage on merchandise of \$5,362.		
Wages accrued	275.00	
To Cash		275.00
Land and buildings	10,000.00	
New York Central stock	4,268.75	
Lots—Ampere, N. J.	200.00	
Life—insurance policy	17.32	
To Realization and liquidation a/c		14,486.07
Realization and liquidation a/c	150,288.69	
To Machinery and tools		62,023.00
Auto trucks		1,000.00
Furniture and fixtures		3,025.00
Stock—Altair Wheel Co.		45,000.00
Merchandise		4,513.73
Accounts receivable		5,594.26
Loan—Altair Wheel Co.		18,000.00
Unexpired insurance		236.25
Fees and expenses of receivership		10,896.45
W. B. Tison, capital	135,951.61	
To Realization and liquidation account ...		135,951.61
To close realization and liquidation account to account of proprietor.		

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Very few comments seem to be necessary in this solution. Most complications arise in connection with the transactions of the receiver. These transactions are journalized. The journal entries are made sufficiently explicit so that comment on the transactions would seem to be somewhat superfluous. Most benefit will be derived by studying the transactions in connection with the journal entries and tracing the posting of the journal entries to the respective ledger accounts. If this is done the manner in which the problem has been solved will be apparent.

In arriving at the percentage which unsecured creditors should receive on their claims, a trial balance of the skeleton ledger accounts after closing is desirable. The trial balance is as follows:

TRIAL BALANCE (AFTER CLOSING)

Cash	\$251,773.39	A/cs payable	\$172,725.00
Deficit	112,401.61	Notes "	180,000.00
		Int. acc. N/P	11,000.00
		Personal debts	450.00
	<u>\$364,175.00</u>		<u>\$364,175.00</u>

From the above trial balance it will be seen that the total amount due unsecured creditors is \$364,175 while there remains in cash available, to meet these claims, only \$251,773.39. Dividing this amount representing cash by the total amount due unsecured creditors it will be seen that they should receive 69.13 plus % of their claims.

PROBLEM NO. 24 (PRACTICE)

The following are the transactions effected by T. M. Jarvis, trustee for the bankrupt estate of H. M. Carley:

Land and buildings sold for \$162,500, the purchasers paying the taxes for the year of \$3,250, and assuming the mortgage with accrued interest of \$2,625; machinery and tools, \$38,525; horses, wagons and harness, \$525; furniture and fixtures, \$260; merchandise, \$14,813.26; accounts receivable, \$20,409.62; 100 shares of American Real Estate Company preferred sold at 122½; 100 shares D. L. & W. sold by creditor at 145; 50 shares sold by trustee at 145½; insurance cancelled at .0492; property on Long Island sold for \$4,500, the purchaser assuming the mortgage; Auto Wrench Company stock sold for \$5,000. The interest ac-

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crued on the secured notes payable when settled was \$145.70; accrued interest on notes receivable \$132.50. There were 95 creditors. The office expenses of the receiver were \$6,217.52; stenographers' and witness fees, \$435.22. Loan to Auto Wrench Co. paid in full. Referee's fees, \$2,400. Trustee's fees, \$2,600. No interest to be accrued.

Prepare:

Skeleton ledger accounts showing books of the trustee. What percentage was paid to unsecured creditors?

Income Tax Department

EDITED BY JOHN B. NIVEN, C.P.A.

November, 1913, will be remembered as the month in which the operations of the federal income tax act made themselves felt in a practical manner. Formal returns of income under the act, by individuals, or indeed by corporations, except in the case of those few corporations whose fiscal years close on October 31st or November 30th, and who elect to make their returns as of these dates, will not require to be filed until March 1st next, but on November 1st the effect of "deduction at the source" made itself immediately felt. Bankers and others interested in the collection and payment of dividends and interests at once found themselves face to face with the duties imposed upon them in this connection. Investors became alive to the tax when they found their coupons thrown back on their hands to enable them to attach one or other of the various forms of certificates called for by the authorities, and where no exemption was claimed and the income was not "tax exempt" when they received credit for only 99% of the amounts they had been accustomed to receive.

Owing to the very short time which had elapsed since the passage of the act and the practical impossibility on the part of the Treasury department in Washington of preparing and circulating full instructions relative to their requirements in the premises, borrowers of money, bankers, and others interested had to decide for themselves innumerable problems which had immediately to be met, and the direct cost, to financial institutions particularly, has been found to be extremely burdensome. It is recognized that a great deal of trouble and expense will always be involved under the duties imposed for "deduction at the source," but the difficulties will no doubt assume less alarming proportions after the authorities and the general public become accustomed to the situation, and the necessary technicalities are simplified as the result of their mutual experience. Some of the burdens which immediately troubled the public have indeed already been lightened, if not removed, as the result of the rules of procedure laid down by the Treasury department and the construction of various clauses of the act by the department, which has shown a commendable desire to make matters as easy as possible in an admittedly complicated and difficult practical situation. For instance, contrary to general practice in making formal returns to government departments, none of the certificates relative to ownership of coupons or claiming exemption of tax, etc., require to be signed before witnesses, and for practical purposes, except in the case of salaries in excess of \$1,500 per month, deduction at the source of tax from salaries will not become operative until 1914, as it has been directed that no deduction need be made until the employer has disbursed on or *after November 1st, 1913*, and within the year, a sum of \$3,000.

The clauses of the act relating to "collection at the source," being

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therefore first to come into practical operation, were very properly given first consideration by the authorities, and most of the rulings which have been issued to date have dealt with different phases of this subject. These rulings are printed in full in other parts of this Journal, partly in the November issue and partly in this issue, but a few words at this time on their general effect may be useful.

The first two rulings (which were printed last month) dealt with the general subject of "Deduction at the Source." Ruling No. 1887, issued October 25th entitled "Regulations, etc." (part 1) governs interest maturing on bonds, notes, etc. of corporations and associations. Ruling No. 1890 issued October 31st, entitled "Regulations (part 2), etc." governs all other classes of income upon which tax is deductible in this manner, including rents, interest not otherwise provided, salaries, royalties, annuities, etc. It is under these latter regulations that the withholding agent is not required to deduct tax in 1913, until he has paid to any particular person income in excess of \$3,000 after October 31st. Under the first, it is laid down, *inter alia*, that non-resident foreigners, owning interest bearing bonds, are exempt. In both these issues of regulations there are laid down minute instructions for the preparation and filing of various certificates (with the prescribed forms), designed to advise the authorities, through the paying source, of the income accruing to individuals and corporations, whether claimed as tax exempt or not, it being the intention later to use these certificates as a check upon the individual returns filed with the department. All such certificates, except a certain temporary certificate (No. 1005) are directed to be filed by the debtors or paying agents with the department on or before the 20th day of the month succeeding their receipt.

The next ruling (No. 1891 November 3d) deals with a matter of detail, and requires the maker of a note given for interest, rent, etc., even prior to November 1st, 1913, to withhold the normal tax of 1 per cent, subject, of course, to the rights as to exemption, when payment is made after November 1st. This is quite in accordance with the act, but the ruling further lays down that any person discounting such a note without making allowance for the tax, through ignorance of its nature or otherwise, can only look to the previous holder for reimbursement. This seems to impose a hardship upon an ordinary holder in due course of such a note, which in general practice, under the negotiable instruments acts of various countries and states, would be removed.

Ruling No. 1892, November 6th, merely emphasizes the fact that interest upon obligations of the United States or upon any subdivision thereof is not subject to the tax, and that, contrary to the practice of some banks, certificates of ownership will not be required in connection with coupons or registered interest orders thereon, unless the coupons or interest orders do not clearly show they are in payment of such interest.

Ruling No. 1893, November 6th, provides that interest on deposits, whether on open account or certificate, with banking institutions, *will not* be subject to deduction at the source, but that the individual return of the person or persons entitled thereto will include the same.

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Ruling No. 1894, November 12th, extends the privilege to sign certificate No. 1004 to certain *agents* for non-resident aliens.

Ruling No. 1897, November 14th, is the first ruling dealing with matters not connected with "deduction at the source." It governs the establishment of a fiscal year, instead of the calendar year, at the option of corporations as a basis for the computation of their net income and the payment of their income tax. The forms for the return of net income are not yet, however, issued. An important point in this ruling is the fact that for the first return to be made, closing at a date other than December 31st, the period to be covered will be that portion of the year in which the change to the fiscal period is made from January 1st to the close of the fiscal period. Thus, if a corporation closes its books on November 30th, and it elects to make its return on the basis of its fiscal year, the first return under the new basis will be for 11 months only and thereafter for its complete fiscal year. It need not, however, on the one hand, elect to make the change to its fiscal period unless it so determines, and, on the other hand, it may make its election in any year, provided the proper notice is given. The return must be lodged not more than 60 days after the close of the fiscal period, and notice of the intention to lodge such return must be given at least 30 days prior thereto.

Under Ruling No. 1901, November 28th, the Treasury waive until March 31st, 1914 the filling in of the numbers of bonds or like obligations in certificates where the same are required elsewhere in the regulations which have been issued.

Ruling No. 1902, November 28th, extends the time for the use of temporary certificate No. 1005 (provided under T. D. Ruling No. 1887—see *Journal*, Vol. 16, p. 400) to foreign holders until January 15th, 1914.

Ruling No. 1903, November 28th, provides a form of substitute certificate to be attached, if desired, by responsible bankers or other collecting agencies at home or abroad in place of certificates signed by the original holders of interest coupons, in order to give greater privacy to the holdings of individuals, and preserve the financial secrets of bankers and bonding houses, the lists of whose clients have been hitherto jealously guarded. The bankers substituting such certificates are obliged to preserve a careful record of the same in a specific form, in which the entries are identified with the certificates by serial number. The original certificates so detached are to be forwarded by the bankers, etc., to the commissioner of internal revenue at Washington not later than the 20th day of the month succeeding their receipt for collection.

Ruling No. 1904, November 28th, deals with the evidence of authority of an agent to sign certificates of ownership of coupons, and to the enfacement by the banker to whom such certificates are presented of a statement that he is satisfied of the responsibility of the agent.

Ruling No. 1905, November 28th, governs the treatment of partnerships in connection with collection of income tax at the source. In the case of domestic partnerships, any partner may claim exemption on behalf of the partnership up to a specific amount of income on account of legitimate expense incurred in conducting the partnership business (not including

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the personal or living expenses of any partner), and a form of certificate to be attached to coupons, etc. claiming such exemption is provided. The partners may be later called upon by the commissioner of internal revenue to substantiate the justice of such claims for exemption. Partnerships whose members are wholly or partly non-resident aliens are entitled to exemption from "deduction at the source" provided a certificate in form provided, stating the ownership of the partnership by the partnership, is attached, which certificate shall show the name and legal address of each member of the partnership who is a citizen or resident of the United States or its possessions.

Ruling No. 1906, November 28th, is one which has been earnestly looked for, and defines trustees and other fiduciary agents as "the source" for purpose of collecting income tax. On the filing of a certificate under which the trustee or trustees state their capacity as such, declare their ownership in any particular income, and assume the responsibility of withholding tax, all bankers debtors or paying agents are relieved from withholding the normal tax. Such trustees will themselves make annual returns of the income of each beneficiary under the trust with respect to their income therein, when it exceeds \$3,000, to the collector of the district in which the beneficiary resides, which return shall be similar to the returns of individuals, accompanying same with a list of the names and addresses of all the beneficiaries and their respective shares. The trustee or trustees shall also make a list return to the collector of his own district of all beneficiaries to whom he pays \$3,000 income or more, or to whom such is due, stating the amount of tax retained or to be retained. Fiduciary agents will of course be open to receive and deal with certificates from beneficiaries claiming exemption in the same manner as other withholding agents.

Ruling No. 1907, November 26th, adapts and extends the use of certain certificates already prescribed to broader uses. Form 1000 is extended temporarily to the use of guardians, trustees, etc. Forms 1001, 1003 and 1004 are temporarily adapted and extended for the use of foreign organizations and partnerships.

Ruling No. 1908, November 28th, prescribes a form of certificate to be furnished by foreign organizations not engaged in business in the United States and not subject to tax.

Ruling No. 1909, November 28th, contains further regulations as to making applications, filing bonds and issuing licenses to collecting agencies of income from foreign countries. This is supplemental to part of T. D. Ruling No. 1887—see *Journal of Accountancy*, Vol. 16, p. 396.

TREASURY RULINGS

(T. D. 1891 November 3, 1913)

Income tax on notes given for interest, rents, etc.

How tax shall be collected when such notes before their maturity shall have been sold by the payee or recipient, or shall have been discounted with banks.

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When a note shall have been given in payment of interest, rents, or other income accruing after March 1, 1913, and said note matures on or after November 1, 1913, the *maker of the note*, as the "debtor" and as the "source" where the income originates, is required, in paying such note, to withhold the normal tax of 1 per cent on the entire amount of the note, if said note is in excess of \$3,000, *unless* a claim shall be made for exemption of \$3,000 or \$4,000 (as the case may be) under the provisions of paragraph C, section 2 of the act; and, if such claim for exemption shall be made (as provided for on Form 1007), then the said tax shall be withheld only on the amount of said note *in excess of the exemption* claimed in said certificate.

If any person who has purchased or discounted any of said notes may have omitted, in acquiring them from previous holder, to make a deduction or allowance for said tax, such purchaser can only look for relief to the person from whom he shall have gotten the notes, and the "debtor," the maker of said notes, will be held liable for and be required to deduct, withhold, and pay to the collector of internal revenue the amount of the normal tax of 1 per cent which may be due thereon under the law and these regulations.

To illustrate:

A (unmarried, and who does not claim the \$3,000 exemption provided in paragraph C of section 2 of the income-tax law) borrows on May 1, 1912, \$120,000 from B at 6 per cent per annum interest on two years' time, and gives B his bond for \$120,000 for the principal and four \$3,600 notes, each representing six months' interest, for the maturing interest, payable May 1 and November 1 each year. On October 1, 1913, B takes A's interest note for \$3,600, due November 1, 1913 (which bears no mark to indicate that it represents interest), to the Richmond National Bank; the bank is not informed that the note represents interest, but being satisfied that A, the maker of the note, is good without additional indorsement, discounts the note for B at the rate of 6 per cent per annum and pays to B the proceeds—\$3,582.

On November 1, 1913, the note matures and the bank calls on A, the maker, to pay the note. A offers the bank \$3,564, which is equal to \$3,600 less the 1 per cent tax of \$36, informing the bank that the note represents interest which he owes and that, under the federal income-tax law, he is required to deduct this tax from the face of the note in making payment.

The bank claims that it was not informed that the note represented interest and, therefore, subject to this tax; but A is, *nevertheless required under the law to withhold the tax.*

If A under his contract with B had agreed to pay the interest *without deduction for any income tax* which might be imposed by the government, he would, of course, after deducting the 1 per cent tax for the government, pay the bank, as holder of the note, the full amount of \$3,600. But, if the contract between A and B did *not* provide that A would pay the full interest without deducting such income tax as the government might impose, and, if the bank should, therefore, desire

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to reimburse itself for the amount of the tax thus deducted by A, the bank can look only to B, for whom it discounted the note, and the question as to whether this \$36 deduction should be borne by B or by the bank is a question which must be settled mutually between the bank and B.

(T. D. 1892 November 6, 1913)

Interest upon obligations of the United States or its possessions, or of any state, county, city, or any other political subdivision thereof, is not subject to income tax.

It has been called to the attention of this office that banks in certain sections are refusing to pay coupons for interest on bonds of states, counties, cities, or other political subdivisions of the United States, when such coupons are not accompanied by certificates of ownership, without deducting the normal income tax of 1 per cent, which the law and the regulations of this department require shall be deducted at the source in paying the interest on bonds of corporations, joint-stock companies or associations, and insurance companies.

Please inform all parties interested, giving the information wide publicity, that the income derived from the interest upon the obligations of a state, county, city, or any other political subdivision thereof, and upon the obligations of the United States or its possessions, *is not subject to the income tax*, and a certificate of ownership in connection with the coupons or registered interest orders for such interest will not be required.

The interest coupons should clearly show on their face whether they are issued by the United States or any political subdivision thereof. If, however, they do not clearly show this, then, of course, an ownership certificate should be required.

(T. D. 1893 November 6, 1913)

Income tax on the interest on bank deposits and bank certificates of deposit not to be withheld at the source.

Banks, bankers, trust companies, and other banking institutions receiving deposits of money are *not required* under the Treasury regulations (part 2), approved October 31, 1913, to withhold at the source the normal income tax of 1 per cent on the interest paid or accrued or accruing to depositors, whether on open accounts or on certificates of deposit; but all such interest, whether paid or accrued and not paid must be included in his tax return by the person or persons entitled to receive such interest, whether on open account or on the certificate of deposit.

(T. D. 1894 November 12, 1913)

Income-tax ruling as to how and by whom certificates of ownership may be signed in cases where bonds of corporations, joint-stock com-

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panies or associations, and insurance companies are owned by non-resident aliens.

Coupons (or orders for registered interest) payable in the United States, representing the interest on bonds owned by nonresident aliens, *must be accompanied by the prescribed certificate*, form 1004, as per treasury regulations of October 25, 1913; but this certificate may be signed either by the owner himself (herself or themselves) or in behalf of the owner by a reputable bank or bankers, or other responsible collecting agency, certifying to the ownership of the bonds and giving the name and address of the bona fide nonresident and alien owners, and when such certificate is thus attached the normal tax of 1 per cent on such coupons or interest orders need not be withheld at the source by the debtor or collecting agency.

(T. D. 1897 November 14, 1913)

Instructions to collectors relative to corporations, joint-stock companies or associations, and insurance companies making return of annual net income for their fiscal years instead of the calendar year.

The federal income-tax law (Sec. 2, Act of Oct. 3, 1913) authorizes corporations, joint-stock companies, etc., under certain conditions to make their returns on the basis of an established "fiscal year," or consecutive 12-months' period, which may be other than the calendar year.

Pursuant to this provision, the following instructions are issued for the guidance of collectors and other interested parties:

Any corporation, joint-stock company or association, or any insurance company, subject to the tax imposed by this act, may, at its option, have the tax payable by it computed upon the basis of the net income received (accrued) from all sources during its fiscal year, *provided that it shall designate the last day of the month selected as the month in which its fiscal year shall close as the day of the closing of its fiscal year, and shall, not less than thirty days prior to the date upon which its annual return is to be filed*, give notice, in writing, to the collector of internal revenue of the district in which its principal place of business is located, of the day it has thus designated as the closing of such fiscal year.

In pursuance of this provision, a corporation or like organization subject to this tax may, for example, designate the 30th day of September as the day for the closing of its fiscal year, whereupon its return of annual net income shall be filed with the collector of internal revenue of the district in which its principal place of business is located not later than 60 days after the close of its said proposed fiscal year; that is to say, on or before the 29th day of November next succeeding.

The date of the closing of the fiscal year having been designated, notice thereof must be given to the collector *not less than thirty days prior to the last day of such sixty-day period*. In the case just instanced, the notice must be given not later than October 31.

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If such designation (Sept. 30, 1913), had been made and notice given, as hereinbefore indicated, as to the closing of the fiscal year 1913, the corporation would be authorized to make its return and have the tax payable by it computed upon the basis of the net income received (accrued) by it during the period from January 1 to September 30, 1913, both dates inclusive.

In the absence of such designation and notice of the closing of the fiscal year corporations and like organizations subject to this tax will be required to make their returns and have the tax computed upon the basis of the net income for the calendar year.

Collectors of internal revenue receiving notices of the selection and designation of the "fiscal years," as above indicated, will make record of the same, recording (a) the name of the corporation or like organization, (b) the date when the notice was given, (c) the day designated for the closing of the fiscal year, and (d) the date when the return under such designation must be filed, which must be, as above stated, not later than the last day of the 60-day period next following the day designated as the close of the fiscal year.

If it shall appear that for the current year the notice was given within the prescribed time—that is, within 30 days of the last day of the 60-day period—the 1913 return may be made as of the fiscal year so established; otherwise it will be made *on the basis of the calendar year* until such time as the designation shall be duly made and notice thereof properly given.

The designation and notice cannot be retroactive; that is to say if a corporation now designates April 30, 1914, as the date of the closing of its fiscal year and gives notice of such designation, it would not be authorized to make a return for the 4 months ended April 30, 1913, and then for the fiscal year ended April 30, 1914, nor would it be authorized to make one return covering the entire 16 months ended April 30, 1914. In the case of such corporation the return for the current year must be made for the calendar year ended December 31, 1913, and then, assuming that designation and notice had been properly made and given, it may make a return for the 4 months ended April 30, 1914, and *thereafter* the return will be made on the basis of the fiscal year so established.

In all cases where a fiscal year is not established as above prescribed returns must be made on the basis of the calendar year, in which case such returns must be filed on or before the 1st day of March next succeeding such calendar year.

Such returns, for the period covered, must be true and accurate, definite and complete, and, in as far as consistent with the provisions of the law, must conform to the showing made by the books of the company, and must be verified under oath or affirmation of its president or other principal officer, and its treasurer or assistant treasurer; that is to say, by two different persons acting in the official capacity indicated.

If it shall appear in any case that returns have been made to the collector on the basis of a fiscal year not designated as above indicated,

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the corporations making such returns will be advised that such returns cannot be accepted, but must be made to cover the business of the calendar year.

Returns made under this act and pursuant to these instructions must be made on the new forms prescribed by this department.

The forms heretofore in use, under the special excise-tax law, cannot be used for making returns for either the fiscal or calendar year 1913.

If returns of such corporations as have properly established a fiscal year are due to be made before the new forms are available, the collector will be authorized to grant an extension of time to such corporations, not exceeding 30 days, for the filing of such returns, by which time the new forms prescribed will be available for distribution.

(T. D. 1901 November 28, 1913)

Waiver until March 31, 1914, of Treasury requirements for the filling in on certificates of the numbers of the bonds of corporations, etc., upon the interest from which the normal income tax of 1 per cent is required to be deducted at the source under the provisions of the income tax law.

Notice is hereby given that the Treasury regulations heretofore issued, which require that the numbers of the bonds or other like obligations of corporations, etc., from which interest coupons are detached or upon which registered interest is to be paid shall be filled in on the certificates are hereby waived so far as the filling in of the numbers of the bonds or other such obligations on the certificates is concerned until March 31, 1914.

In all other respects the certificates referred to must be filled in in accordance with the Treasury regulations before the coupons or orders for registered interest to which they may be attached shall be paid.

(T. D. 1902 November 28, 1913)

Extension of time for use of temporary form 1,005, from Nov. 16, 1913, to Jan. 15, 1914, so far as foreign holders of coupons and interest orders may be concerned.

The time for the use of temporary certificate, Form 1,005, shall be extended from Nov. 16, 1913, to Jan. 15, 1914, when signed by a person, firm, or corporation licensed under Paragraph "E" of the income tax law, provided such form shall only be used in cases where the coupons to which it shall relate shall have been received by such licensed person, firm, or corporation from a foreign country.

(T. D. 1903 November 28, 1913)

Regulations permitting the substitution under certain conditions of the

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certificates of banks, bankers, or other collecting agents for the certificates of the owners required to be attached to interest coupons when presented for collection, under income tax regulations of October 25, 1913, and those supplementary thereto.

Treasury regulations of October 25, 1913, and those supplementary thereto, require that under the conditions therein prescribed, there shall be attached to interest coupons maturing on bonds and other similar obligations of corporations, etc., which may be presented for collection, certain certificates of ownership signed by the owners of the bonds from which the coupons were detached or by their duly authorized agents.

Notice is hereby given that responsible banks, bankers and collecting agents receiving coupons for collection with the aforesaid certificates of ownership attached may either present the coupons with the attached certificates to the debtor or withholding agent for collection, or, at the option of the collecting agent, the certificates above referred to may be detached from such coupons and forwarded direct to the commissioner of internal revenue at Washington, D. C., as hereinafter set forth; provided such bank, banker or collecting agent shall thereupon substitute for said owner's certificate and attach to said coupons, in lieu of said certificate of owner, a certificate signed by said bank, banker or collecting agent to whom said coupons may have been first presented for collection, in substantially the following form:

(FORM 1000a)

Form of certificate to be attached to interest coupons in cases where the collecting agent's certificate is substituted for the certificate of the owners. The owner's certificate, of which the following certificate is the counterpart, and bears the same number as this certificate, will be sent by the collecting agent direct to the commissioner of internal revenue at Washington, as prescribed by regulations.

"I (we).....(name of collecting agent), do solemnly declare that the owner of the \$.....bonds of the.....(name of debtor organization) from which were detached the accompanying interest coupons due(maturity), 191..., amounting to \$.....has filed with me (us) a duly executed certificate filled up in accordance with Treasury regulations of Oct. 25, 1913, form No....., which certificate has been indorsed by me (us) as follows: 'Owner's certificate No.....(name of collecting agency) (date), 191...', and in which the said owner (does, does not) claim, with respect to the income represented by said interest, the benefit of a deduction of \$....., allowed under Paragraph C. Section II, of the Federal income tax law, the total exemption to which said owner now claims to be entitled thereunder being \$.....and I (we) do hereby promise and pledge myself (ourselves) to forward the above described certificate executed by the owners as stated and dated....., 191..., to the commissioner of internal revenue, at Washington, D. C., not later than the 20th day of next month, in accordance with Treasury regulations.

"Signature of Collecting Agent....."

"Date,....., 191..., address....."

The certificate of the owner, for which the foregoing certificate of

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the collecting agent may be thus substituted by the collecting agent first receiving said coupons for collection must be given the following endorsement by the collecting agents and should be made preferably with a rubber stamp:

Owners' certificate No....

(Name of collecting agency)(give date of certificate)

191...

The counterpart of the within certificate bearing like number was attached to the coupons within mentioned for delivery to the debtor or withholding agent by whom the coupons are payable.

Certificates of owners for which collecting agents' certificates are substituted must be forwarded to the commissioner of internal revenue at Washington, D. C., by the collecting agency receiving them not later than the twentieth day of the month succeeding that in which said coupons were thus received for collection.

All banks, bankers or other collecting agents who may substitute their certificates for the certificates of owners under the foregoing plan will be required to keep a complete record of all such transactions and substitutions of certificates, showing all certificates for which the collecting agents' certificates have been issued in lieu of the owners certificates.

This record should be kept by months and should give the following information: Serial number of item received; date received; name of person from whom received; address; name of debtor corporation; class of bond from which coupons were cut; face amount of coupons collected; deductions from tax claimed by owners under Paragraph C of Federal income tax law; amount of interest collected.

Until further ruling by this department the banks, bankers, and other collecting agents who may substitute their certificates for the certificates of owners under the foregoing plan, will not be required to secure a license from the Treasury department for being permitted to make such substitutions of their own certificates for those of the owners, provided these regulations are strictly complied with.

The permission to banks, bankers, and collecting agents to substitute their own certificates under the above regulations for those of the owners of the bonds, etc., will extend to responsible banks, bankers and collecting agents in foreign countries as well as to those in the United States.

(T. D. 1904 November 28, 1913)

Supplemental regulations relative to duly authorized agent's authority to sign certificates of ownership which accompany coupons or registered interest orders when presented for collection.

Certificates of ownership, which are required to accompany all coupon or registered interest orders under regulations made in pursuance of section 2, act of Oct. 3, 1913, may be signed in the name of the owner of the bonds, by his duly authorized agent, and the said certificates

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shall give the full name and address of both the owner and his authorized agent.

If the person, firm, or organization to whom the certificate thus signed is presented for collection is reasonably satisfied as to the identity and responsibility of the person signing as duly authorized agent, he or it shall stamp or write on the face of said certificate "satisfied as to identity and responsibility of agent," giving name and address of person thus certifying, and said certificate may then be accepted by persons, firms, or organizations to whom presented, without requiring further evidence as to authority of agent.

If the person, firm, or organization first receiving certificate of ownership signed by an agent is not satisfied or cannot satisfy himself or itself as to the agent's identity and responsibility, then in that event, the authorized agent shall furnish evidence of his authority so to act, which evidence will be retained by the person, firm, or organization receiving it, and the certificate of ownership shall then be indorsed as provided herein.

(T. D. 1905 November 28, 1913)

Supplemental regulations relative to partnerships.

Inasmuch as individual members of a partnership are liable for income tax upon their respective interest in the net earnings of said partnership, and are required to include said net earnings in their personal returns, the partnership may file with the debtor corporation or with a withholding agent a notice signed in the name of the partnership, by a member thereof claiming a deduction of a specific amount on account of the legitimate expenses (not including the personal or living expenses of the partners) incurred in conducting the business of said partnership, and upon receipt of said notice, said withholding agent shall not withhold and shall not be held liable for, the normal tax on the amount of income equal to the amount of deduction claimed in said notice, but in no event shall the total of the amounts claimed as provided herein be in excess of the total amount of the actual legitimate annual expenses incurred by said partnership in the conduct of its business. Application for such deduction shall be made in substantially the following form:

(FORM 1011)

I,....., a member of the firm or partnership of.....of.....conducting the business of....., and residing at....., do solemnly declare that the said (give full address)..... partnership is the owner of \$..... bonds of the denomination of \$..... each, Nos.,,,, of the (name of debtor), known as.....(describe the particular issue of bonds) bonds, from which were detached the accompanying interest coupons, due....., 191.., amounting to \$....., or upon which

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there matured \$. of registered interest, or is the owner of ,
(property, or investments) upon which there accrued \$. of income.

We hereby claim a deduction of \$. , allowed on account of the actual expenses incurred in conducting said business, under regulations made in pursuance of Section 2, act of Oct. 3, 1913, and do solemnly declare that neither the partnership nor its individual members has claimed deductions in excess of its total actual legitimate annual expenses of conducting the business of said partnership and that no portion of the living or personal expenses of the partners is included in the deductions claimed.

(Name of signing partner)

(Signing for)

(Name of partnership)

(Address)

Date,

Partnerships are not subject as partnerships to the income tax, and are required to make statements of their income and earnings as partnerships only when requested to do so by the commissioner of internal revenue or the collector of internal revenue for the district in which said partnership has its principal place of business, and when such a statement is required as aforesaid the said statement shall give a complete and correct report of the gross income of the said partnership and also a complete account of the actual legitimate annual expenses of conducting the business of said partnership (not including living and personal expenses of the partners) and the net profits and the name and address of each of the members of said partnership and their respective interest in the net profits thus reported.

The net annual income of a partnership when apportioned and paid to the members thereof shall be returned by each individual partner receiving same in his annual return of net income and the tax shall be paid thereon by said individual partner as required by law.

When the annual income of a partnership is not distributed and paid to the members thereof, the respective interest of each member in said profits shall be ascertained, and the individuals entitled thereto shall include the said amount in their annual return as part of their gross income, the same as if said profits had been distributed and paid to them.

Undivided annual net income of partnerships thus returned by the individual members thereof, upon which the tax shall have been paid, shall not, when said profits are actually distributed and paid to the partners, be again included in their annual return as part of their gross income.

Foreign partnerships or firms, all the members of which are both citizens or subjects and residents of a foreign country, which are the owners of bonds and mortgages or deeds, of trust or other similar obligations, including equipment trust agreements, receivers' certificates, and stocks of corporations, joint stock companies or associations and insurance companies, organized or doing business in the United States, may file with the debtor or withholding agent, with their coupons or orders for registered interest, or orders for other income derived from property or investments in the United States, certificate and notice of ownership,

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setting forth the facts as to non-residence and alienship, and the debtor or withholding agent shall not withhold any part of their said income.

Where a foreign partnership or firm is composed of both non-resident foreigners and citizens of the United States, or foreigners resident in the United States or its possessions, the certificate of ownership shall show this fact, and the name and legal address of each member of said partnership who is a citizen of the United States or who is a foreigner residing in the United states or its possessions, shall be given on the said certificate, and no part of said income shall be withheld by the paying agent.

The said certificate and notice of ownership shall be in substantially the following form:

(FORM 1014)

Form of certificate to be presented with coupons or interest or other income orders detached from bonds or other obligations owned by partnerships or firms of foreign countries:

"I....., a member of the firm or partnership of....., and residing at.....,(give full address) do solemnly declare that the said partnership is the owner of \$..... bonds of the denomination of \$..... each, Nos..... of the.....(give name of debtor) of the..... known as.....(describe the particular issue of bonds) from which were detached the accompanying interest coupons, due....., 191..., amounting to \$....., or upon which there matured 191..., \$..... of registered interest or is the owner of.....(property or investments) upon which there has accrued....., 191..., \$..... of income, and that all the members of said firm or partnership, except....., (give name and address of partners not non-resident aliens) are non-resident foreigners, and as such are exempt from the income tax imposed on such income by the United States Government under the law enacted Oct. 3, 1913, and that no citizen of the United States wherever residing, or foreigner residing in the United States, or any of its possessions, except those named above, has any interest in said bonds, coupons, or interest.

"Name of partner signing
"Of the firm of
"Date, Address"

(T. D. 1906 November 28, 1913)

Supplemental regulations designating guardians, trustees, executors, administrators, agents, etc., as the "source" for purpose of collecting income tax and as to making annual and list returns and withholding tax.

Guardians, trustees, executors, administrators, agents, receivers, conservators, and all persons, corporations or associations acting in any fiduciary capacity hereinafter referred to and known as the fiduciary who hold in trust an estate of another person or persons shall be designated the "source" for the purpose of collecting the income tax and by filing the following notice with other debtors or withholding agents

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said fiduciary shall be exempt from having any income due to them as such withheld for any income tax by any other debtor or withholding agent.

Other debtors or withholding agents upon receipt of this notice shall refrain from withholding any part of such income from said fiduciary and will not, in such case, be held liable for normal tax of 1 per cent due thereon. The form of notice to be filed with the debtor or withholding agent by the fiduciary shall be substantially as follows:

(FORM 1015)

"The following form of certificate should be filed with the debtor, or its paying agents, at the time of the payment to the fiduciary, or his representative, of all coupons, interest orders, rents, and all other kinds of income whatsoever upon which the tax on income is required to be withheld at the source.

"I (we) do solemnly declare that I (we).....(name Fiduciary), am (are) the duly authorized.....(Indicate in what capacity acting), for the beneficiaries of the estate or trust of..... which estate or trust is entitled to the income from \$..... bonds of the denomination of \$..... each, Nos., of the.....(Give name of debtor), known as.....bonds.....(Describe the particular issue of bonds), from which were detached the accompanying coupons, due....., 191.., amounting to \$....., or upon which there has matured....., 191.., \$..... of registered interest, or which estate or trust is entitled to other income from property or investments upon which there accrued 191.., \$..... of income.

"Acting for and in the capacity as stated herein, I (we) hereby assume the duty and responsibility imposed upon withholding agents under the law of withholding and paying the income tax due, for which I (we) may be liable, and acting in said fiduciary capacity as stated herein, I (we) do hereby claim exemption from having the normal tax withheld from said income.

.....
(Name) (Capacity in which acting)
Address,
Date, 191....."

Said fiduciaries shall on or before March 1 of each year, when the annual interest of any beneficiary in said income is in excess of \$3,000, make and render a return of the income of the person or persons for whom they act to the collector of internal revenue of the district in which the fiduciary resides.

This return shall give an itemized statement of the gross income and deductions claimed, and shall be in the same form as prescribed for annual return made by individuals.

Said fiduciary acts for and in behalf of the beneficiaries of said trust; and the annual return required as above in behalf of said beneficiaries has reference only to the income accruing and payable through said fiduciary and not the income of said beneficiaries from other sources, unless the said fiduciary is legally authorized to act for said beneficiaries in their individual capacity, in which case said fiduciary, acting as duly authorized agent of the individual, shall also make the personal annual return as provided by law.

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There shall accompany the annual return of said fiduciary a list giving the name and full address of each beneficiary and the share of said income to which each may be entitled.

Fiduciary agents, in addition to the annual return of income required by these regulations, shall make an annual list return, as provided by regulations for withholding agents, whenever payment of income to any beneficiary is in excess of \$3,000. Said list return shall be made on or before March 1 of each year to the collector of internal revenue for the district in which said fiduciary resides or has his principal place of business, giving name and address of each beneficiary of said trust to whom annual income in excess of \$3,000 is paid, the amount of income paid to each beneficiary, giving source of income, the amount of exemption claimed by each beneficiary, if any, and the amount of income withheld for tax, and the said list return shall be signed by the fiduciary making same, stating in what capacity acting, and give his name and full address.

Fiduciaries having an annual income that is not distributed or paid to the beneficiaries of the trust under which said fiduciary acts shall make an annual list return, as provided herein, and said list return shall show the name and address of each beneficiary having a distributive interest in said income in excess of \$3,000, stating the distributive amount of each beneficiary, and shall give all information as required in said list returns, and shall withhold and pay to the collector as provided by law the normal tax of 1 per cent upon the distributive interest of each of said beneficiaries in excess of \$3,000, the same as if said income was actually distributed and paid; exemption under Paragraph C, however, may be claimed by the beneficiary or his legal representative by filing his claim for exemption with the fiduciary agent.

When the fiduciary agents deduct, withhold and pay the normal tax on undivided annual net income as provided herein, they shall not be required to withhold and pay again the normal tax on said income when actually distributed and paid to said beneficiaries, nor shall the beneficiaries be required again to pay the normal tax on the amounts on which the tax has been paid when such amounts are distributed.

Where the normal tax is withheld and paid by fiduciary agents on undivided annual income, beneficiaries (or their legal representatives) in whose behalf said tax is paid may file notice with said fiduciary and claim the benefit of any annual exemption they may be entitled to under Paragraph C of the act of October 3, 1913, as provided by regulations, the same as if their distributive interest in said income was actually paid.

(T. D. 1907 November 26, 1913)

Supplemental instructions as to acceptance of certificate Form 1,000 as originally prescribed in regulation of Oct. 25, 1913, and the original and amended Form 1,000 as it has been adapted to the use of fiduciary agents, and certificate Forms 1,001, 1,003, and 1,004 as they have been adapted to the use of foreign organizations and partnerships.

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Certificates of ownership Form 1,000, as originally prescribed in regulations of Oct. 25, 1913, shall be accepted by debtors or withholding agents when properly filled in and signed by the owner of the bonds or his duly authorized agent until Dec. 10, 1913, and after that date only the amended Form 1,000, as prescribed by regulations, shall be accepted.

Form 1,000, original and amended, as it has been adapted to the use of guardians, trustees, executors, administrators, agents, receivers, conservators and all persons, corporations, or associations acting in fiduciary capacity, when properly filled in and signed and given the information required by the regulations, shall be accepted by debtors or withholding agents until regulations giving a prescribed form of certificate of ownership for fiduciary agents are issued, and for thirty days thereafter.

Forms 1,001, 1,003, and 1,004, as they have been adapted to the use of foreign organizations and foreign partnerships, when properly filled in and signed, and giving the information required by regulations, shall be accepted by debtors or withholding agents until regulations giving a prescribed form of certificate of ownership for foreign organizations and foreign partnerships are issued, and for thirty days thereafter.

(T. D. 1908 November 28, 1913)

Regulations prescribing form of certificate to be furnished by foreign organizations not engaged in business in the United States, and not subject to the income tax on interest or other income collectible at the source.

The certificate to be furnished by foreign organizations not engaged in business in the United States shall be in substantially the following form:

(FORM 1016)

I.....(give name), the.....(give official position), of the(name of organization), a.....(character of organization), of(country), located at.....(Post Office address), do solemnly declare that said.....(give name of organization) is a foreign organization, not engaged in business in the United States, and is owner of \$....., bonds of the denomination of \$..... each. Nos.... of the(give name of debtor), known as.....(describe bonds), bonds, from which were detached the accompanying coupons, due....., 191.. amounting to \$....., or upon which there matured....., 191.., \$....., of registered interest, or is the owner of.....(property or investment), upon which there was accrued....., 191.., \$....., of income, and that under the provisions of the income tax law of Oct. 3, 1913, said organization being a foreign organization, said interest or income is exempt from the payment of taxes collectible at the source, which exemption is hereby claimed.

(T. D. 1909 November 28, 1913)

License required for collection of income received from foreign Countries
Supplemental regulations as to making application, filing bond, and issuing license to collecting agencies of income from foreign countries.

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All persons, firms, or corporations undertaking for accommodation or profit (this includes handling either by way of purchase or collection) the collection of coupons, cheques, bills of exchange, etc.—(a) For or in payment of interest upon bonds issued in foreign countries; (b) Upon foreign mortgages or like obligations, and (c) For any dividends upon stock or interest upon obligations of foreign corporations, associations, or insurance companies engaged in business in foreign countries—who are required by law to obtain a license from the commissioner of internal revenue, shall make application to the collector of internal revenue for the district in which they do business for such license in the following form:

(FORM 1017)

State of....., County of.....
The undersigned (name and office) of (state name of person, firm, or corporation) being duly sworn according to law, declares that on and after the.....day of....., 191.., he intends to engage in the business of collecting foreign income payments of interest or dividends by means of coupons, cheques, or bills of exchange. The aggregate amount of annual collections of such foreign income at the principal and branch offices is estimated at \$.....

The location of the principal and branch offices is as follows:

Principal office..... Branch offices,

If a firm state names of members.

Said person, firm, or corporation is now engaged in business as....., and desires to conduct the business of collecting foreign income at the above address or addresses, and hereby makes application for license required to be secured by persons, firms, or corporations engaged in the business of collecting income from foreign countries under the provisions of Paragraph E of Section 2 of the income tax law of Oct. 3, 1913, and I (we) hereby promise and pledge myself (ourselves) to comply strictly with the provisions of said law and the rules and regulations of the Treasury department which have been or may hereafter be issued in respect to the collection and payment of such foreign income.

Signed (name of firm or corporation).

Sworn to before me this.....day of.....

The collector of internal revenue, upon receipt of such application, shall satisfy himself that the person, firm, or corporation making application is considered to be of good character and business standing and may require that he or they shall be able to show a financial rating in one or more of the recognized mercantile agencies of the United States equal to at least one-tenth of the estimated amount of annual collections of foreign income as stated in the application.

The collector of internal revenue having thus satisfied himself of the business and financial reliability of the person, firm, or corporation making application for license may issue the licence without requiring a bond for the faithful performance of duty and compliance with the law and regulations.

In cases where the person, firm, or corporation shall fail to satisfy the collector of internal revenue of his or their business or financial

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reliability the collector may refuse to issue license or may issue a license upon the applicant filing a surety bond satisfactory to the commissioner of internal revenue for a penal sum equal to 2 per cent of the estimated amount of collections stated in the application, the minimum penal sum, however, to be \$1,000 and the maximum not in excess of \$100,000.

The bond when required shall be executed in duplicate, one of which shall be retained in the office of the collector of internal revenue with whom the bond is filed and the other shall be forwarded by the collector to the commissioner of internal revenue at Washington.

The form of license to be issued shall be as follows:

(FORM 1010)

No.—

License for collection of foreign income.

....., located and doing business at....., and engaged in the business of....., having made application in accordance with the provision of Section 2 of the act of Oct. 3, 1913, and the regulations made in pursuance thereof, is hereby licensed to accept for collection coupons, cheques, and bills of exchange for or in payment of interest upon bonds issued in foreign countries and upon foreign mortgages or like obligations and for the dividends upon stock of foreign corporations, foreign joint stock companies or associations, or foreign insurance companies engaged in business in foreign countries, from....., 191.., until revoked.

This license will not be valid until countersigned by the collector of internal revenue for the district in which issued.

.....
(Collector)

Countersigned

.....
(Commissioner of Internal Revenue)

.....Dist.

This license, made up in the form of bound books containing fifty each with appropriate stubs, will be furnished in blank to the collector of internal revenue with the facsimile signature of the commissioner of internal revenue thereon and shall not be valid until countersigned by the collector of internal revenue by whom issued.

This license may be issued without cost to the persons to whom issued and shall continue in full force until revoked. Failure to give or renew the bond in cases where a bond is required will automatically revoke the license.

In cases where licenses are issued without bond, the collector shall, at stated yearly periods, inquire into and satisfy himself of the financial responsibility of all licensees.

When any person, firm, or corporation has branch offices and desires to collect said foreign interest or dividend income through said branch office, the application for license or licenses shall be made (and bond furnished when a bond is required) by the person, firm, or corporation through its principal office for its branch office or offices.

The bond in such cases shall be based on the total amount of such

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foreign business transacted by both the home office and its branch office or offices.

This application for licenses shall be made (and bond furnished when bond is required) to the collector of internal revenue for the district in which the principal or home office is located. The names and addresses of the branch offices shall be furnished to the collector in the application of the said principal, and if the requirements of the Bureau of Internal Revenue are complied with to the satisfaction of the said collector, then said collector shall certify this fact to the collector of internal revenue for the district in which the branch office for which the license is desired is located, and the collector to whom this certification is made shall thereupon issue a license as provided herein to such branch office.

No bond will be required in any case for the month of December, 1913, but the required license may be issued by collectors of internal revenue immediately upon receipt of the blank licenses in all cases where the applications for licenses which may have been filed shall have been duly approved.

The bond, if required, must be filed for the calendar year 1914, and for each calendar year thereafter. All bonds must be renewed or new bonds furnished on or before Jan. 1 of each successive year. The applications for these licenses and the stubs of the licenses issued shall be retained and preserved in the offices of the collectors of internal revenue.

ERRATUM—ISSUE OF NOVEMBER, 1913

On page 384, fifth line from bottom of page—in place of 1% on \$25,000, \$750, etc., read 3% on \$25,000, \$750, etc.

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Colorado Accountancy Board

The governor of Colorado has appointed the members of the state board of accountancy as follows: Clem W. Collins, Denver; Wm. E. Dittman, Boulder; and Ben Morris, Denver. Terms expire October 20, 1914, 1915 and 1916 respectively.

Maine Board of Accountancy

The Maine board of accountancy met on November 5th at Waterville and perfected its organization by the election of Mr. F. Ernest Holman as chairman and Mr. John T. Fagan as secretary and treasurer. The third member of the board is the Honorable John Lovejoy.

The first examination for the degree of C. P. A. will be held on the 6th, 7th and 8th of January next.

The Society of Certified Public Accountants of the State of New Jersey

At a meeting of the Society of Certified Public Accountants of the State of New Jersey held in Newark on November 18th, Mr. W. M. Deusen, cashier of the National Newark Banking Company, delivered an entertaining and instructive address on the subject of the federal income tax.

The firm of Child, Byrnes, Baker & Smith having dissolved by mutual consent, Messrs. Thomas W. Byrnes and K. Lanneau Baker announce the formation of a copartnership under the firm name of Byrnes and Baker, certified public accountants, with offices at 52 Wall St., New York.

James F. Farrell, C.P.A., and James F. Hughes, C.P.A., have formed a partnership for the practice of accountancy under the firm name of Hughes & Farrell, with offices at 150 Broadway, New York, and 1 Montgomery Street, Jersey City, N. J.

William E. McHenry announces that he has opened an office at 1420 Chestnut St., Philadelphia, for consulting practice in all matters appertaining to manufacturing accounts and costs.

Alexander L. Tinsley, C.P.A. (N. Y.) announces that he has opened offices in the Maryland Life Building, 10 South St., Baltimore, Md., for the practice of accountancy.

John H. Koch & Company, certified public accountants, announce the removal of their offices on December 1st from 26 Beaver Street to 55 Liberty Street, New York.

